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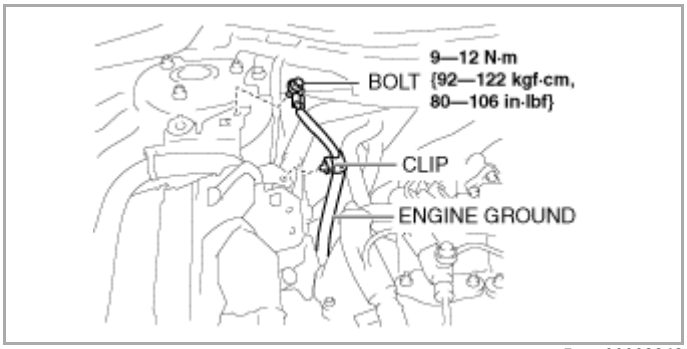
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

## 2014 MAZDA Flair OEM Service and Repair Workshop Manual

Go to manual page

3.Remove the engine cover. (See ENGINE COVER REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)

4.Detach the clip.

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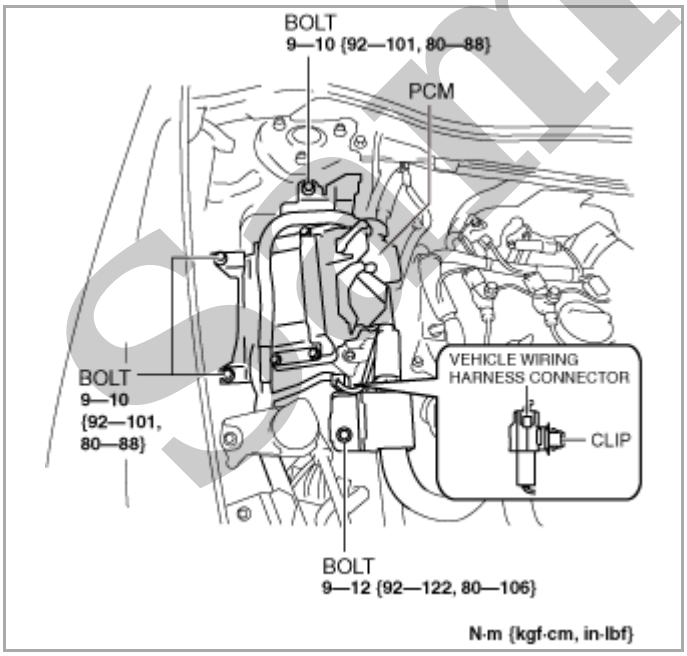
5.Remove the bolt.

6.Disconnect the engine ground.

7.Remove the clip for the vehicle wiring harness connector.

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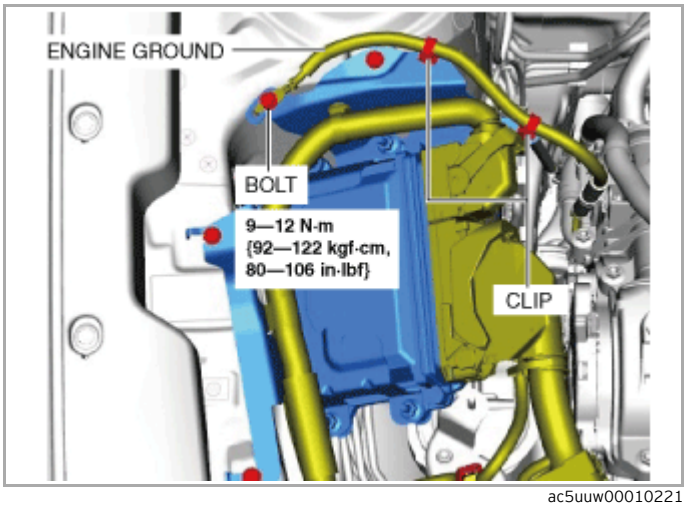
8.Remove the bolts.

9.Set the PCM out of the way.



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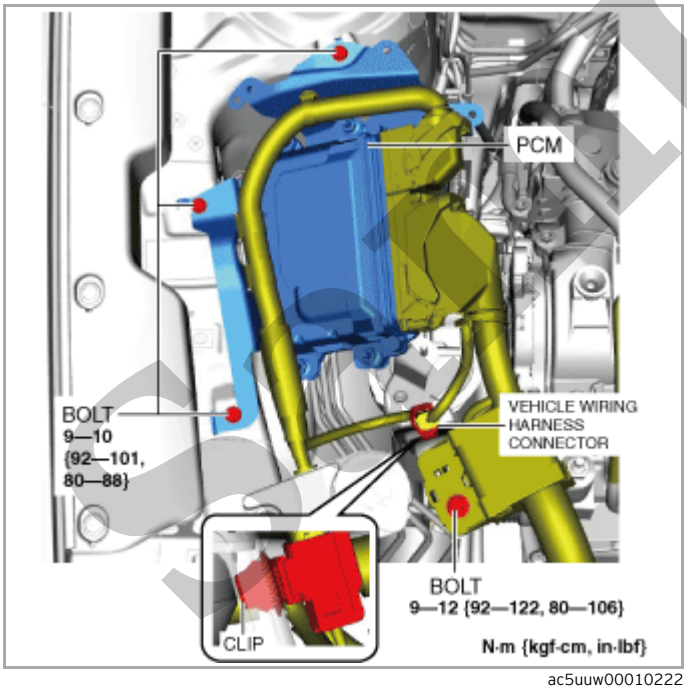
5.Remove the bolt.

6.Disconnect the engine ground.

7.Remove the clip for the vehicle wiring harness connector.



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8.Remove the bolts.

9.Set the PCM out of the way.

10.Disconnect the connector.

# REFRIGERANT PRESSURE SENSOR INSPECTION [FULL-AUTO AIR CONDITIONER]

SM2898685

id0740a181740

## SKYACTIV-G 2.5 (WITH COOLANT CONTROL VALVE)

1.Install the manifold gauge. (See MANIFOLD GAUGE SET CONNECTION.)

2.Verify the high-pressure side reading of the manifold gauge.

3.Measure the terminal voltage at PCM terminal 2AZ, 2AV and 2AI.

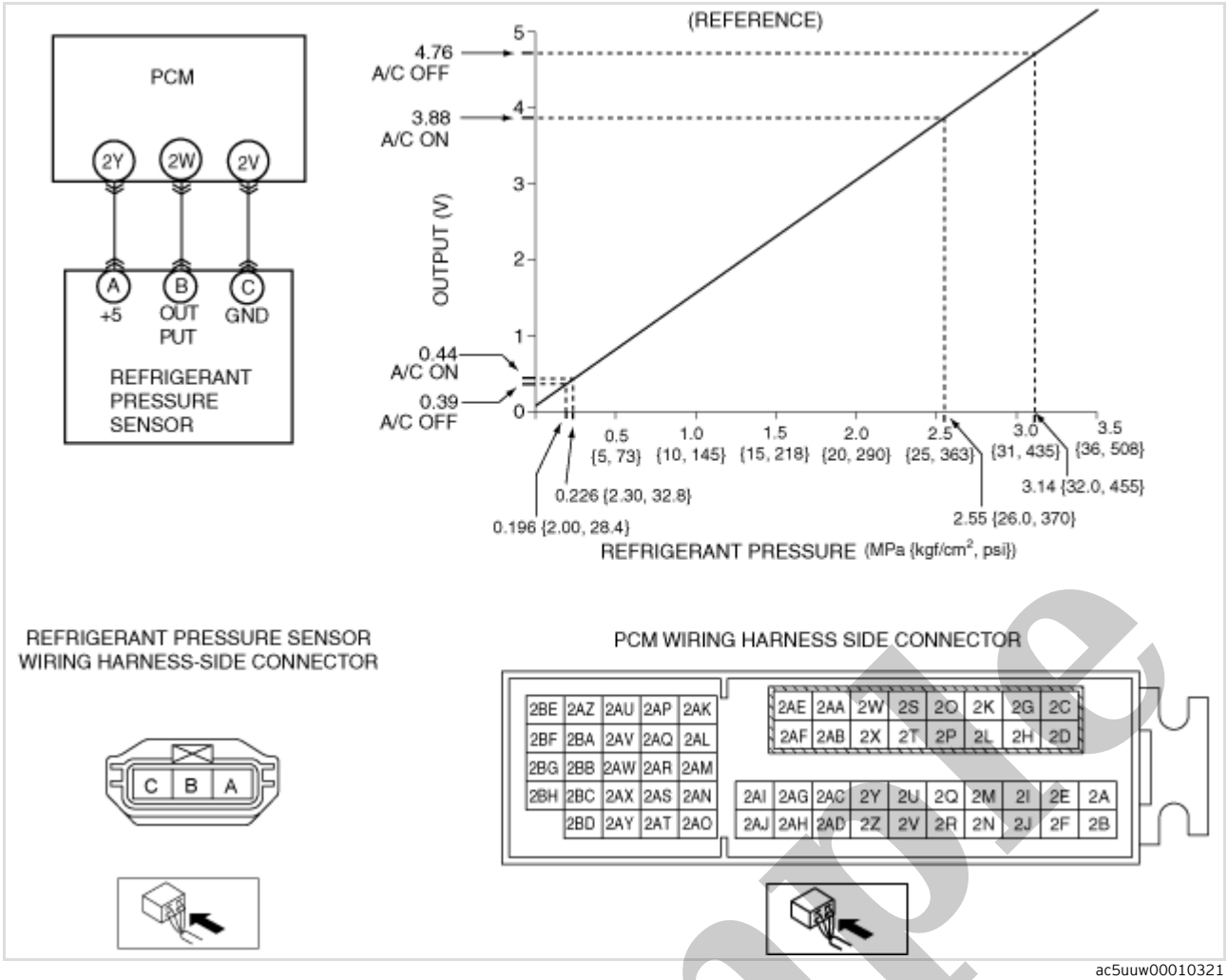
4.Using the graph below, measure and verify the terminal voltages at 2AV.

5.Follow the PCM inspection when measuring the other terminal voltages. (See PCM INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)].)

- Terminal 2AZ: Approx. 5 V (Ignition switch ON)
- Terminal 2AI: 1.0 V or less

— If each voltage is not normal, inspect the related wiring harness.

- If there is any malfunction, replace the related wiring harness.
- If the wiring harness is normal, replace the refrigerant pressure sensor.

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## SKYACTIV-D 2.2

1.Install the manifold gauge. (See MANIFOLD GAUGE SET CONNECTION.)

2.Verify the high-pressure side reading of the manifold gauge.

3.Measure the terminal voltage at PCM terminal 2BB, 2BH and 2BD.

4.Using the graph below, measure and verify the terminal voltages at 2BH.

5.Follow the PCM inspection when measuring the other terminal voltages. (See PCM INSPECTION [SKYACTIV-D 2.2].)

- Terminal 2BB: Approx. 5 V (Ignition switch ON)
- Terminal 2BD: 1.0 V or less

— If each voltage is not normal, inspect the related wiring harness.

- If there is any malfunction, replace the related wiring harness.
- If the wiring harness is normal, replace the refrigerant pressure sensor.

# AIR INTAKE ACTUATOR INSPECTION [MANUAL AIR CONDITIONER]

SM2898689

id0740a280150

**Caution**

**• If the lever position exceeds the operation range shown in the figure, the circuit in the actuator could be damaged. Always perform an actuator operation inspection with the lever movement within the range shown in the figure.**

1.Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)

2.Remove the following parts:

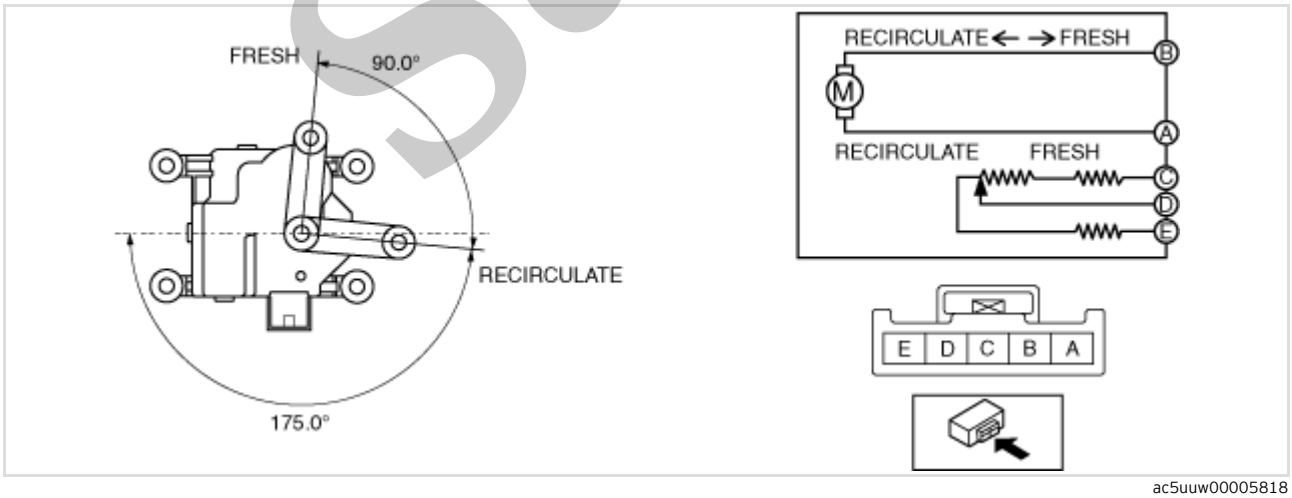
(1)Glove compartment (See GLOVE COMPARTMENT REMOVAL/INSTALLATION.)

(2)Dashboard under cover (See DASHBOARD UNDER COVER REMOVAL/INSTALLATION.)

3.Remove the air intake actuator. (See AIR INTAKE ACTUATOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].)

4.Apply battery positive voltage and connect the ground to the air intake actuator terminals as indicated in the table below and verify the operation condition.

| B+ Terminal | Ground Terminal | Operation |
|---|---|---|
| B | A | FRESH → RECIRCULATE |
| A | B | RECIRCULATE → FRESH |

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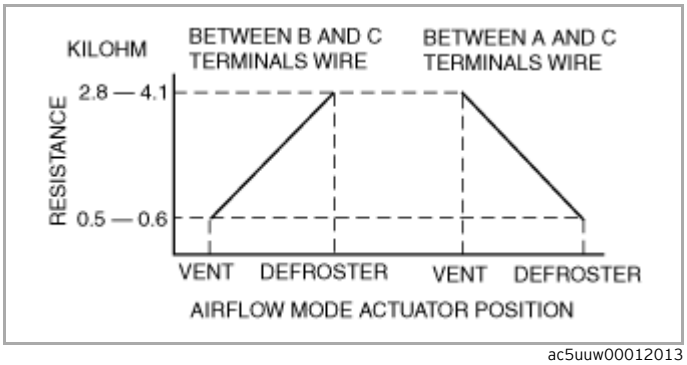
• If not as indicated in the table, replace the air intake actuator. (See AIR INTAKE ACTUATOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].)

5.Verify that the resistance between terminals C and D, D and E matches the air intake actuator operation as shown in the graph.

5.Verify that the resistance between terminals B and C, C and A matches the airflow mode actuator operation as shown in the graph.



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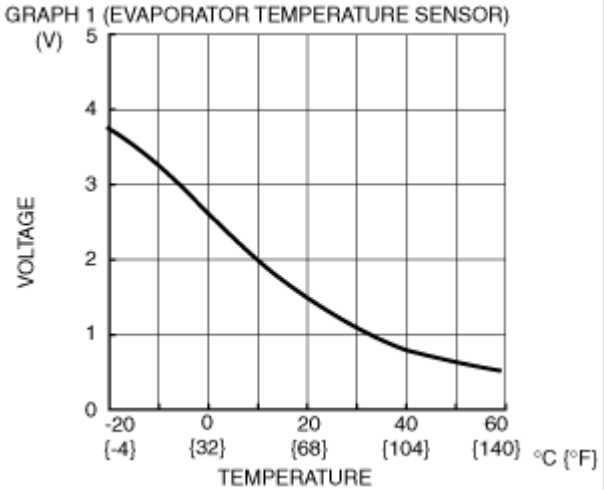
• If the operation condition and resistance are not normal, replace the airflow mode actuator. (See AIRFLOW MODE ACTUATOR REMOVAL [MANUAL AIR CONDITIONER].) (See AIRFLOW MODE ACTUATOR INSTALLATION [MANUAL AIR CONDITIONER].)

| Terminal | Signal name | Connected to | Measurement condition | Voltage (V) | Inspection item (s) |
|---|---|---|---|---|---|
| L | +5V | • Air intake actuator<br>• Air mix actuator<br>• Airflow mode actuator | Under any condition | 5.0 | • Related wiring harness<br>• Air intake actuator<br>• Air mix actuator<br>• Airflow mode actuator<br>• Climate control unit: terminal voltage (R) |
| M | Evaporator temperature sensor input | Evaporator temperature sensor | Compared with temperature detected by evaporator temperature sensor | Refer to graph 1 | • Related wiring harness<br>• Evaporator temperature sensor<br>• Climate control unit: terminal voltage (R) |
| N | Blower fan speed control | Blower fan controller | (See Blower Fan Speed Control Signal) | | • Related wiring harness<br>• Blower fan controller |
| O | – | – | – | – | – |
| P | – | – | – | – | – |
| Q | MS_CAN_H | CAN related module | Because this terminal is for communication, integrity determination by terminal voltage is not possible. | | |
| R | Sensor GND | • Air intake actuator<br>• Air mix actuator<br>• Airflow mode actuator<br>• Evaporator temperature sensor | Under any condition | 1.0 or less | • Related wiring harness |
| S | MS_CAN_L | CAN related module | Because this terminal is for communication, integrity determination by terminal voltage is not possible. | | |
| T | GND | Body ground | Under any condition | 1.0 or less | • Related wiring harness |
| U | – | – | – | – | – |
| V | – | – | – | – | – |
| W | B+ | ROOM 15 A fuse | Under any condition | B+ | • Related wiring harness<br>• ROOM 15 A fuse |
| X | IG2 | Front body control module (FBCM) | Switch the ignition ON (engine off or on) | B+ | • Related wiring harness<br>• Front body control module (FBCM) |
| | | | Switch the ignition off | 1.0 or less | |

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# AIR MIX ACTUATOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER]

SM2898692

id0740a280240

1.Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)

2.Remove the following parts:

(1)Passenger-side front scuff plate (See FRONT SCUFF PLATE REMOVAL/INSTALLATION.)

(2)Passenger-side front side trim (See FRONT SIDE TRIM REMOVAL/INSTALLATION.)

(3)Glove compartment (See GLOVE COMPARTMENT REMOVAL/INSTALLATION.)

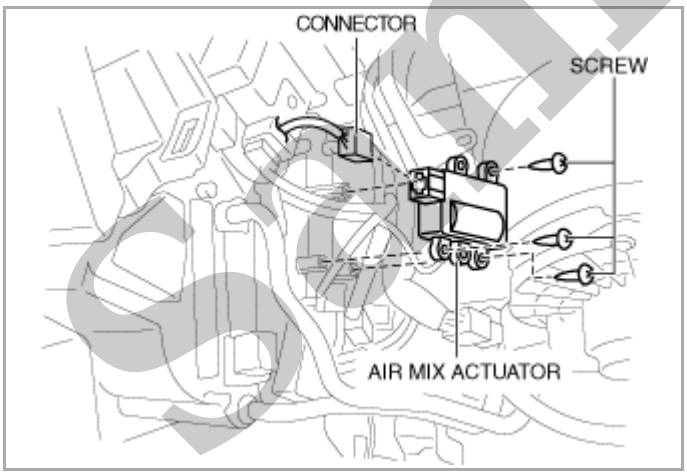
(4)Dashboard under cover (See DASHBOARD UNDER COVER REMOVAL/INSTALLATION.)

(5)Lower decoration panel (See DECORATION PANEL REMOVAL/INSTALLATION.)

(6)Passenger-side lower panel (See LOWER PANEL REMOVAL/INSTALLATION.)

(7)Passenger-side front heat duct (See FRONT HEAT DUCT REMOVAL/INSTALLATION.)

3.Disconnect the connector.

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4.Remove the screws.

5.Remove the air mix actuator.

6.Install in the reverse order of removal.

# AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER]

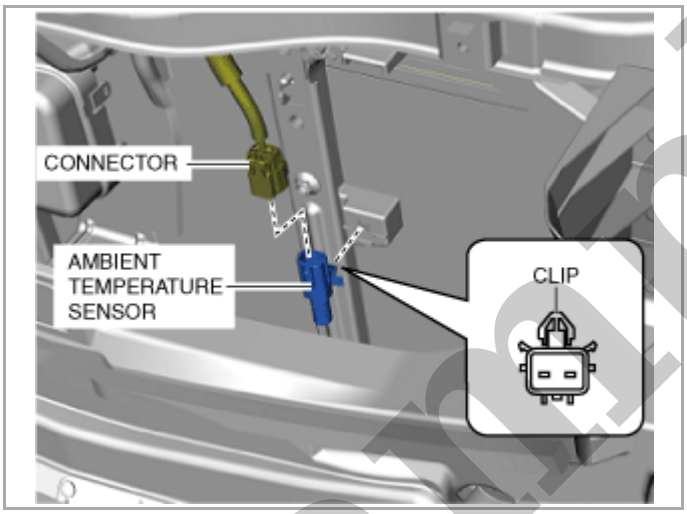
SM2898694

id0740a280320

1.Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)

2.Remove the front bumper. (See FRONT BUMPER REMOVAL/INSTALLATION.)

3.Disconnect the connector.

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4.Detach the clip and remove the ambient temperature sensor.

5.Install in the reverse order of removal.

6.Perform the 360°view monitor system aiming. (With 360° view monitor system) (See 360°VIEW MONITOR SYSTEM AIMING.)