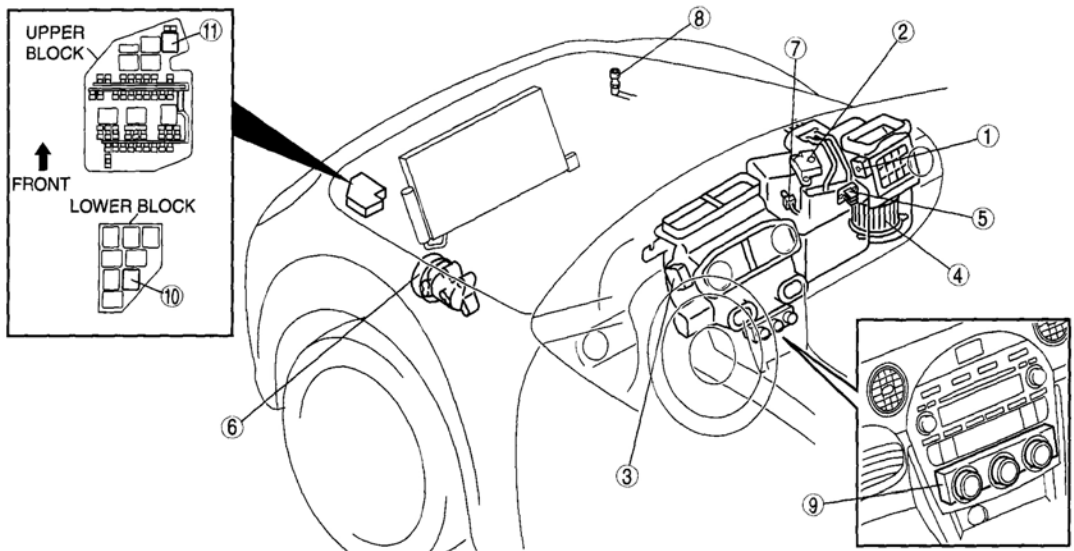


2007 HVAC

Control System - MX-5 Miata

HVAC CONTROL SYSTEM



E5U740ZW5106

|    |                               |
|----|-------------------------------|
| 1  | Air intake actuator           |
| 2  | Air mix actuator              |
| 3  | Airflow mode actuator         |
| 4  | Blower motor                  |
| 5  | Power MOS FET                 |
| 6  | Magnetic clutch               |
| 7  | Evaporator temperature sensor |
| 8  | Refrigerant pressure switch   |
| 9  | Climate control unit          |
| 10 | A/C relay                     |
| 11 | Blower relay                  |

**Fig. 1: Identifying Location Of HVAC Control System Components**  
 Courtesy of MAZDA MOTORS CORP.

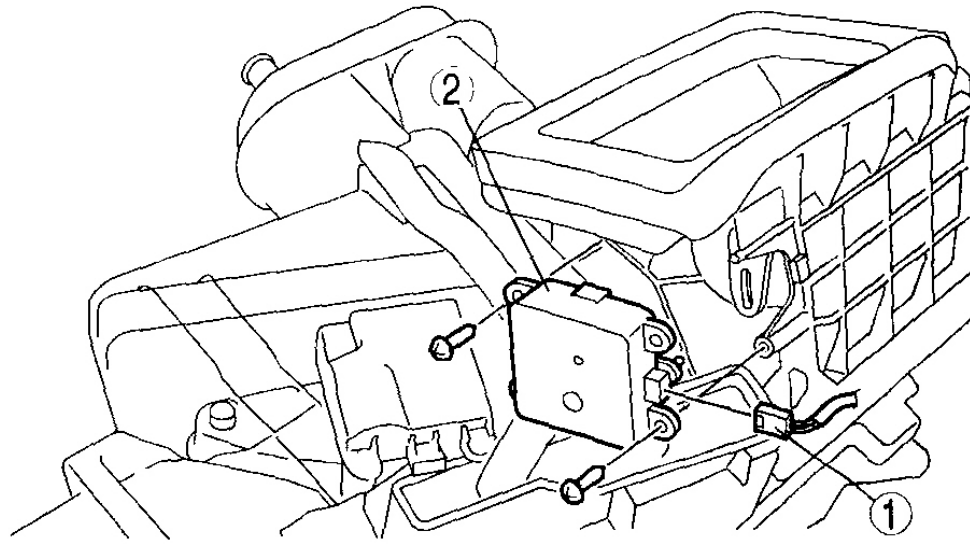
**AIR INTAKE ACTUATOR REMOVAL/INSTALLATION**

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the following parts:
  1. Console (See **CONSOLE REMOVAL/INSTALLATION** .)
  2. Glove compartment (See **GLOVE COMPARTMENT REMOVAL/INSTALLATION** .)

## 2007 Mazda MX-5 Miata Sport

2007 HVAC Control System - MX-5 Miata

3. Side wall (See **SIDE WALL REMOVAL/INSTALLATION** .)
  4. Console panel (See **CONSOLE PANEL REMOVAL/INSTALLATION** .)
  5. Center panel unit (See **CENTER PANEL UNIT REMOVAL/INSTALLATION** .)
  6. Lower panel (See **LOWER PANEL REMOVAL/INSTALLATION** .)
  7. Knee bolster
  8. Column cover (See **COLUMN COVER REMOVAL/INSTALLATION** .)
  9. Driver-side air bag module (See **DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION** .)
  10. Steering wheel (See **STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION** .)
  11. Combination switch (See **COMBINATION SWITCH REMOVAL/INSTALLATION** .)
  12. Steering shaft (See **STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION** .)
  13. Meter hood (See **METER HOOD REMOVAL/INSTALLATION** .)
  14. Instrument cluster (See **INSTRUMENT CLUSTER REMOVAL/INSTALLATION** .)
  15. Side panel (See **SIDE PANEL REMOVAL/INSTALLATION** .)
  16. Hood release lever (See **HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION[ADVANCED KEYLESS SYSTEM]** .)
  17. Female bracket (See **CONVERTIBLE TOP DISASSEMBLY/ASSEMBLY** .)
  18. A-pillar trim (See **A-PILLAR TRIM REMOVAL/INSTALLATION** .)
  19. Scuff plate (See **SCUFF PLATE REMOVAL/INSTALLATION** .)
  20. Front side trim (See **FRONT SIDE TRIM REMOVAL/INSTALLATION** .)
  21. Fuse box No. 1
  22. Dashboard (See **DASHBOARD REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in **Fig. 2** .



E5U740ZW5001

|   |                               |
|---|-------------------------------|
| 1 | Air intake actuator connector |
| 2 | Air intake actuator           |

**Fig. 2: Removing Air Intake Actuator**  
 Courtesy of MAZDA MOTORS CORP.

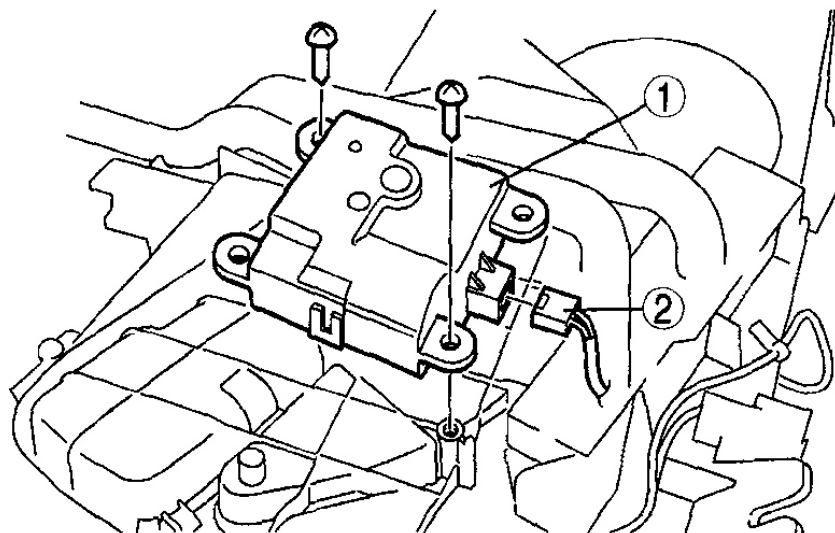
5. Install in the reverse order of removal.

## AIR MIX ACTUATOR REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the following parts:
  1. Console (See **CONSOLE REMOVAL/INSTALLATION** .)
  2. Glove compartment (See **GLOVE COMPARTMENT REMOVAL/INSTALLATION** .)
  3. Side wall (See **SIDE WALL REMOVAL/INSTALLATION** .)
  4. Console panel (See **CONSOLE PANEL REMOVAL/INSTALLATION** .)
  5. Center panel unit (See **CENTER PANEL UNIT REMOVAL/INSTALLATION** .)
  6. Lower panel (See **LOWER PANEL REMOVAL/INSTALLATION** .)
  7. Knee bolster
  8. Column cover (See **COLUMN COVER REMOVAL/INSTALLATION** .)
  9. Driver-side air bag module (See **DRIVER-SIDE AIR BAG MODULE** .)

**REMOVAL/INSTALLATION .)**

10. Steering wheel (See **STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION .)**
  11. Combination switch (See **COMBINATION SWITCH REMOVAL/INSTALLATION .)**
  12. Steering shaft (See **STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION .)**
  13. Meter hood (See **METER HOOD REMOVAL/INSTALLATION .)**
  14. Instrument cluster (See **INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)**
  15. Side panel (See **SIDE PANEL REMOVAL/INSTALLATION .)**
  16. Hood release lever (See **HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION[ADVANCED KEYLESS SYSTEM] .)**
  17. Female bracket (See **CONVERTIBLE TOP DISASSEMBLY/ASSEMBLY .)**
  18. A-pillar trim (See **A-PILLAR TRIM REMOVAL/INSTALLATION .)**
  19. Scuff plate (See **SCUFF PLATE REMOVAL/INSTALLATION .)**
  20. Front side trim (See **FRONT SIDE TRIM REMOVAL/INSTALLATION .)**
  21. Fuse box No. 1
  22. Dashboard (See **DASHBOARD REMOVAL/INSTALLATION .)**
4. Remove in the order indicated in **Fig. 3 .**



E5U740ZW5003

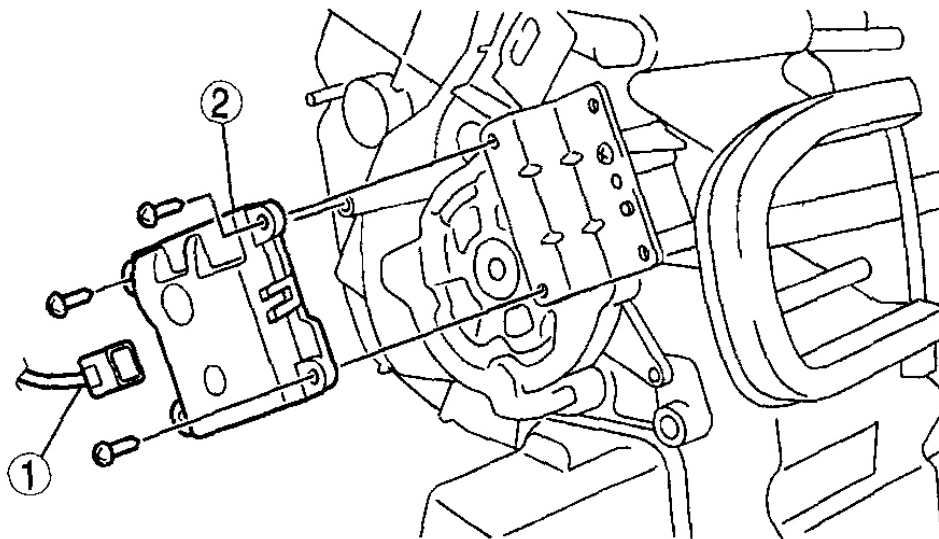
|   |                            |
|---|----------------------------|
| 1 | Air mix actuator           |
| 2 | Air mix actuator connector |

**Fig. 3: Removing Air Mix Actuator & Connector**  
 Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

## AIRFLOW MODE ACTUATOR REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the following parts:
  1. Lower panel (See **LOWER PANEL REMOVAL/INSTALLATION** .)
  2. Knee bolster
4. Remove in the order indicated in **Fig. 4** .



E5U740ZW5005

|   |                                 |
|---|---------------------------------|
| 1 | Airflow mode actuator connector |
| 2 | Airflow mode actuator           |

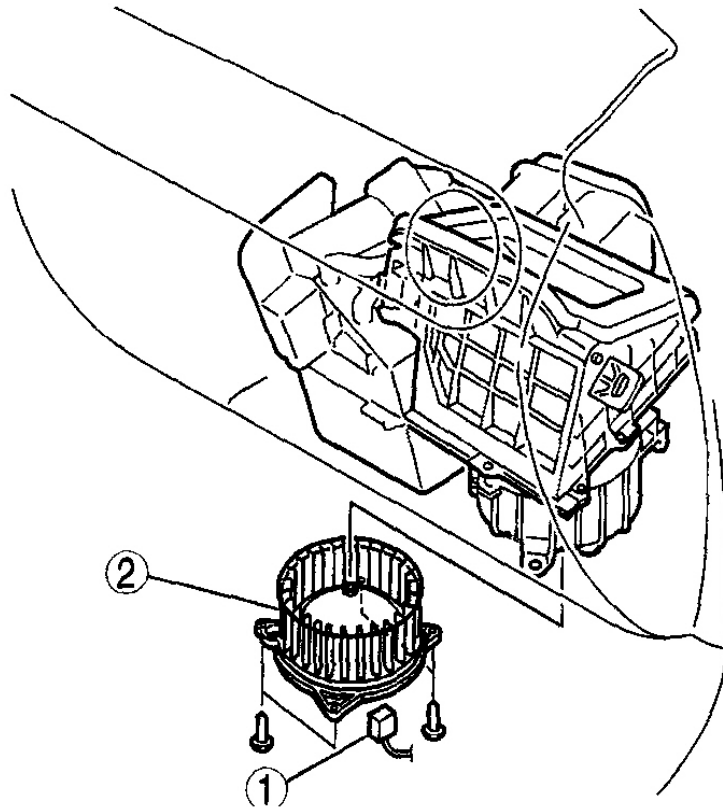
**Fig. 4: Removing Airflow Mode Actuator**  
 Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

## BLOWER MOTOR REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)

3. Remove in the order indicated in **Fig. 5**.



E5U740ZW5007

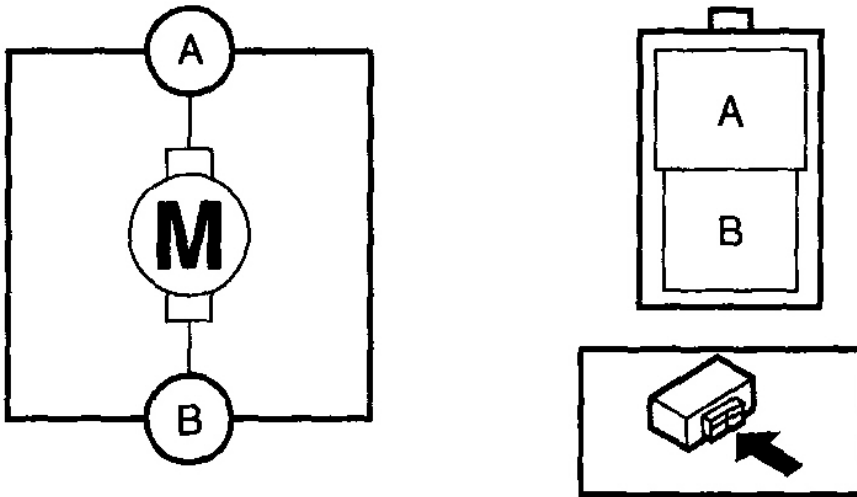
|   |                        |
|---|------------------------|
| 1 | Blower motor connector |
| 2 | Blower motor           |

**Fig. 5: Removing Blower Motor Connector & Motor**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

## BLOWER MOTOR INSPECTION

1. Connect battery positive voltage to blower motor terminal A, ground to terminal B, and then verify that the blower motor operates smoothly.
  - If the operation condition is not normal, replace the blower motor.

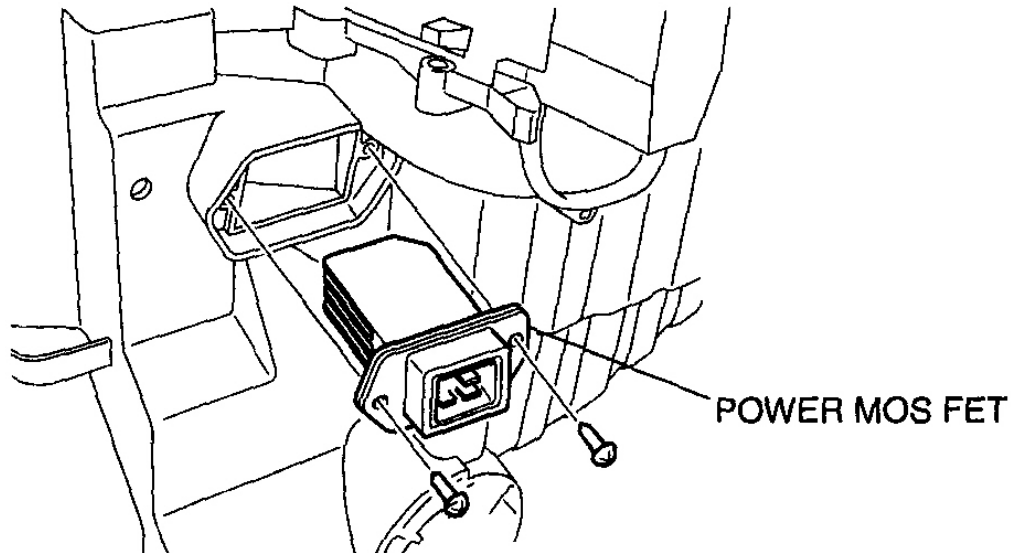


CHU0740W202

**Fig. 6: Identifying Blower Motor Terminals**  
Courtesy of MAZDA MOTORS CORP.

## POWER METAL OXIDE SEMICONDUCTOR FIELD EFFECT TRANSISTOR (POWER MOS FET) REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Disconnect the power MOS FET connector.
4. Remove the power MOS FET as shown in **Fig. 7** .
5. Install in the reverse order of removal.
6. Perform the refrigerant system performance test. (See **REFRIGERANT SYSTEM PERFORMANCE TEST** .)



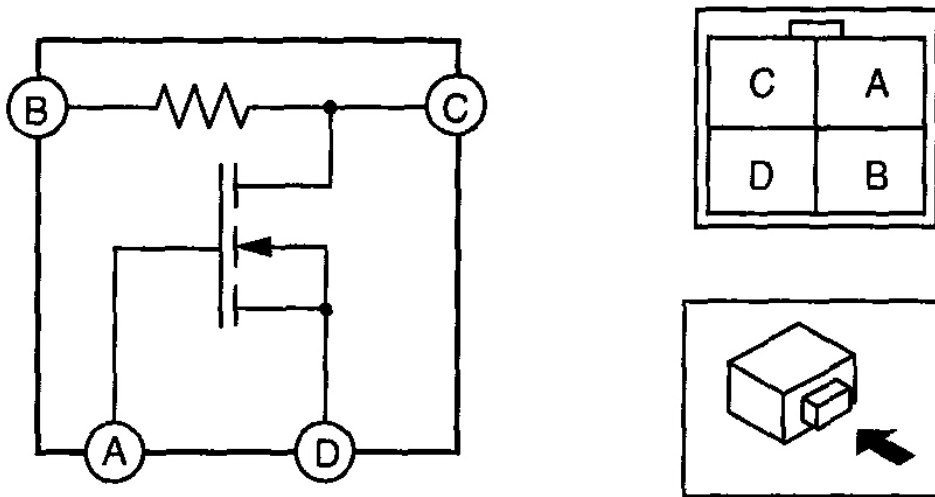
E5U740ZW5008

**Fig. 7: Removing Power MOS FET**  
Courtesy of MAZDA MOTORS CORP.

## **POWER METAL OXIDE SEMICONDUCTOR FIELD EFFECT TRANSISTOR (POWER MOS FET) INSPECTION**

1. Verify that the resistance between the terminals of the power MOS FET is as shown in **TERMINALS RESISTANCE TABLE** .
  - If there is any malfunction, replace the power MOS FET.





E5U740ZW5009

**Fig. 8: Identifying Terminals Of Power MOS FET**  
 Courtesy of MAZDA MOTORS CORP.

**POWER MOS FET RESISTANCE TABLE**

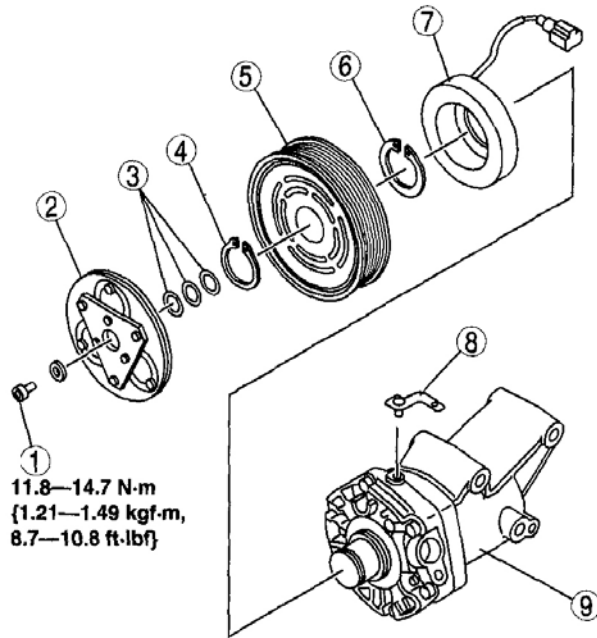
| Tester lead |   | Resistance (kilohm) (approx. quantity) |
|-------------|---|--|
| +           | - |  |
| A           | B | 1,300                                  |
| A           | C | 1,300                                  |
| A           | D | 2.2                                    |
| B           | A | infinity                               |
| B           | C | 0.12                                   |
| B           | D | infinity                               |
| C           | A | infinity                               |
| C           | B | 0.12                                   |
| C           | D | infinity                               |
| D           | A | 2.2                                    |
| D           | B | 190                                    |
| D           | C | 1,300                                  |

**MAGNETIC CLUTCH DISASSEMBLY/ASSEMBLY**

1. Disassemble in the order indicated in **Fig. 9** .

## 2007 Mazda MX-5 Miata Sport

2007 HVAC Control System - MX-5 Miata



E5U740ZW5010

|   |                       |
|---|-----------------------|
| 1 | Bolt                  |
| 2 | Pressure plate        |
| 3 | Shim                  |
| 4 | Snap ring             |
| 5 | A/C compressor pulley |
| 6 | Snap ring             |
| 7 | Stator                |
| 8 | Clamp                 |
| 9 | A/C compressor body   |

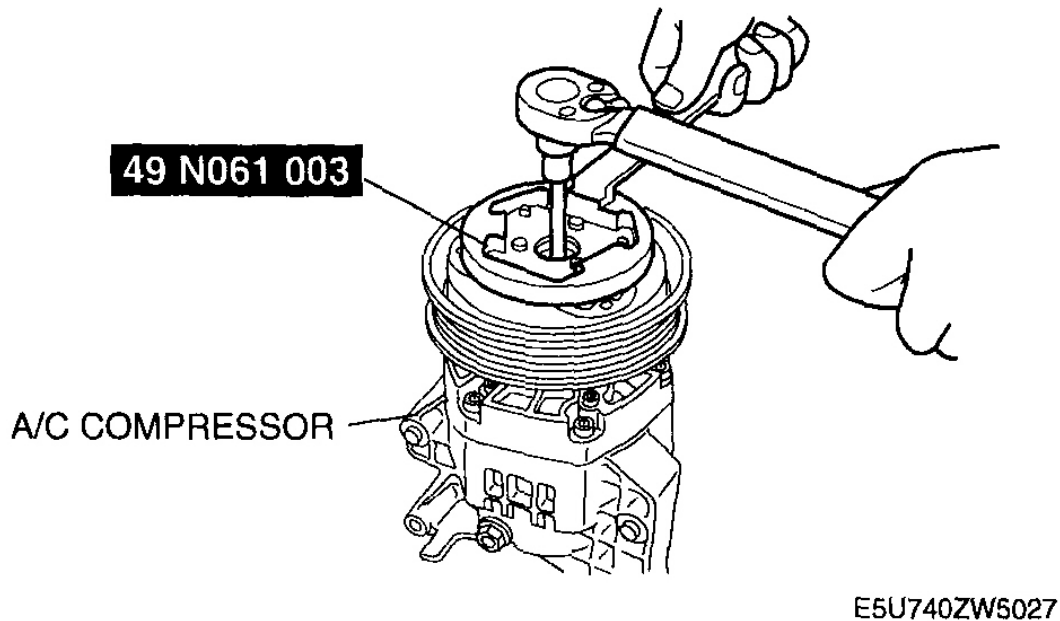
**Fig. 9: Identifying Magnetic Clutch Components (With Torque Specifications)**  
Courtesy of MAZDA MOTORS CORP.

2. Assemble in the reverse order of disassembly.

3. Adjust the magnetic clutch clearance. (See **MAGNETIC CLUTCH ADJUSTMENT** .)

### **BOLT REMOVAL/INSTALLATION NOTE**

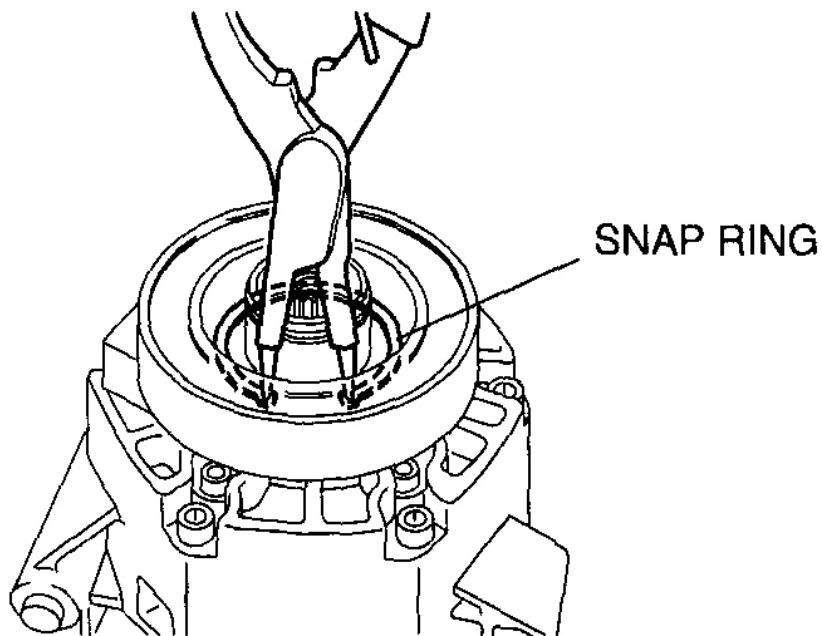
1. When removing or installing the bolt, hold the pressure plate as shown in **Fig. 10** .



**Fig. 10: Removing/Installing Bolt**  
Courtesy of MAZDA MOTORS CORP.

### **SNAP RING REMOVAL/INSTALLATION NOTE**

1. Remove the snap ring using a snap ring pliers.



E5U740ZW5024

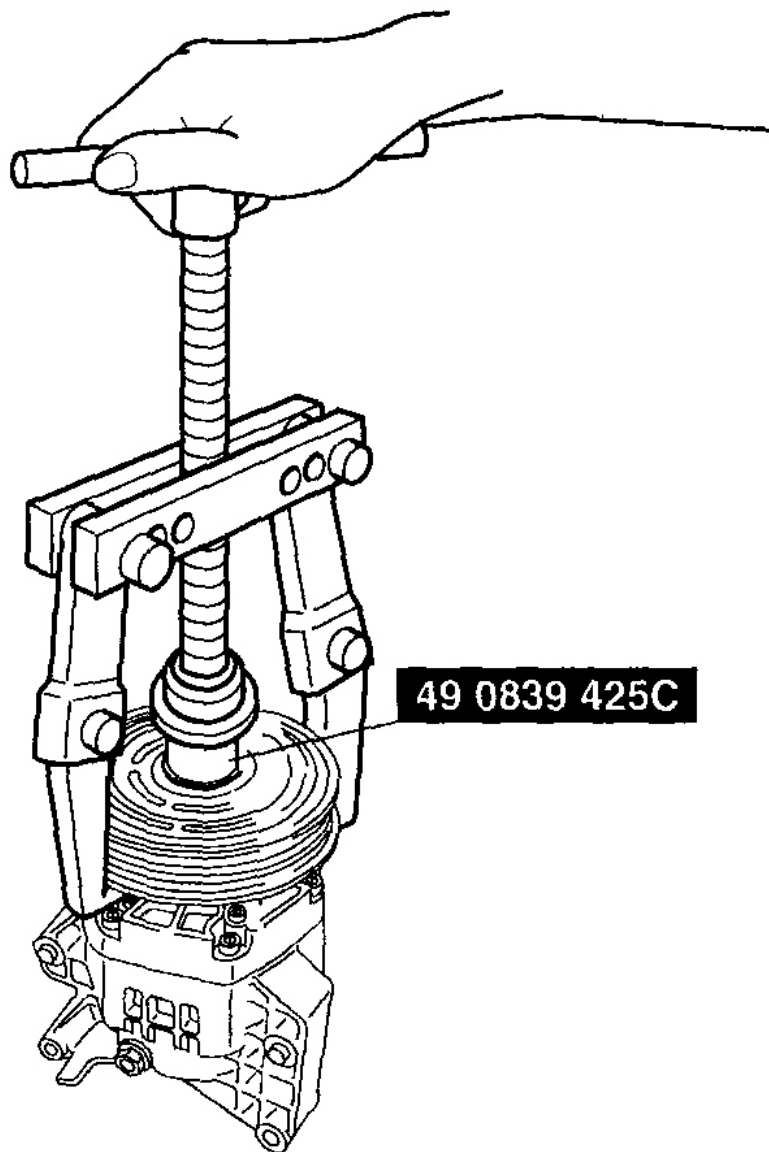
**Fig. 11: Removing Snap Ring Using Snap Pliers**  
Courtesy of MAZDA MOTORS CORP.

#### A/C COMPRESSOR PULLEY REMOVAL NOTE

1. Remove the A/C compressor pulley using the SST (49 0839 425C) .

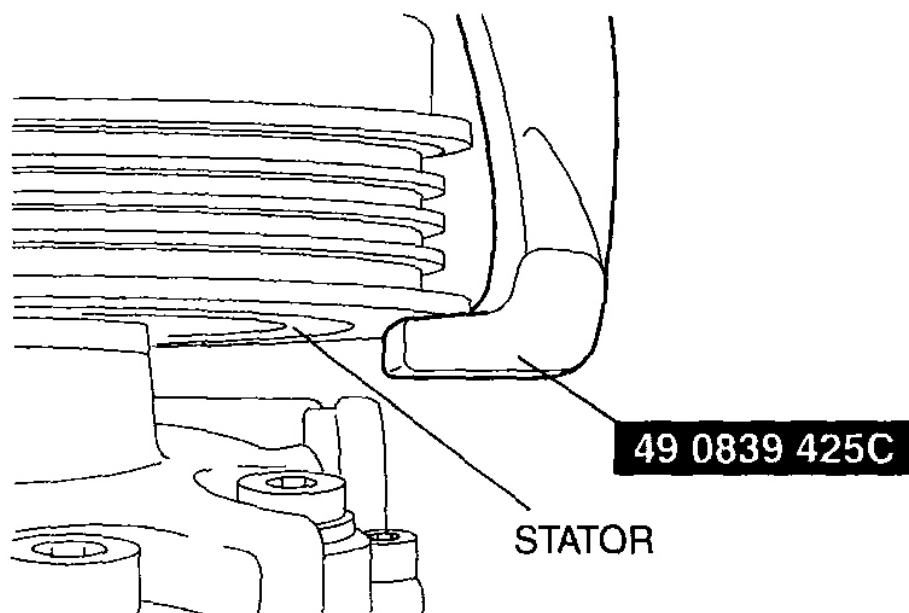
**CAUTION:**

- Be careful that the SST (49 0839 425C) tabs do not hang over the stator.



E5U740ZW5110

**Fig. 12: Removing A/C Compressor Pulley (1 Of 2)**  
Courtesy of MAZDA MOTORS CORP.

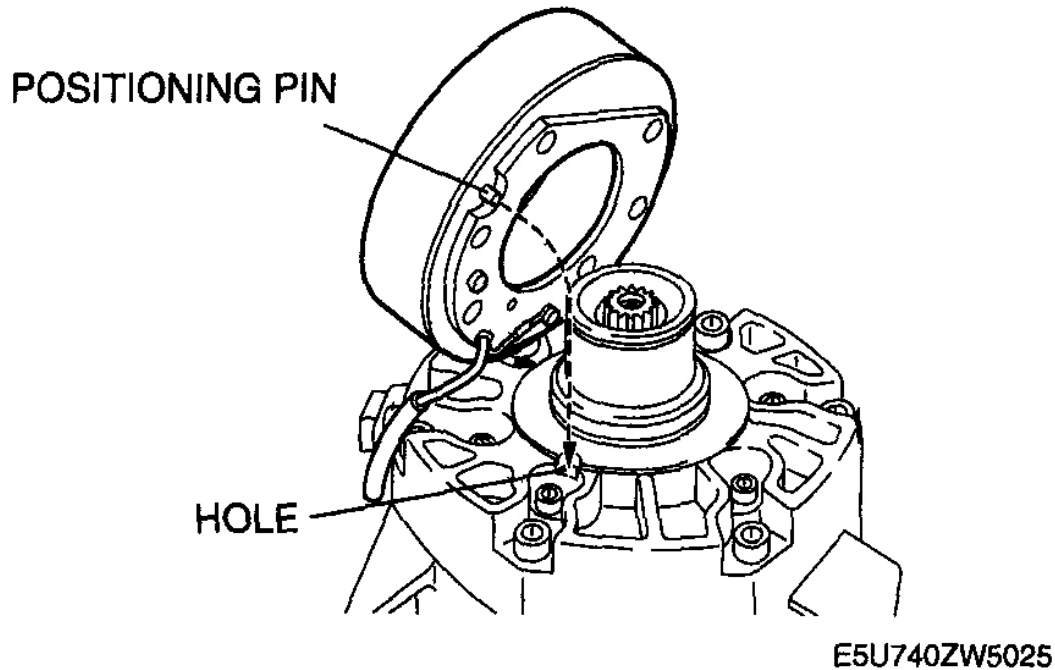


E5U740ZW5021

**Fig. 13: Removing A/C Compressor Pulley (2 Of 2)**  
Courtesy of MAZDA MOTORS CORP.

**STATOR INSTALLATION NOTE**

1. Align the positioning pin with the hole of A/C compressor body and insert.

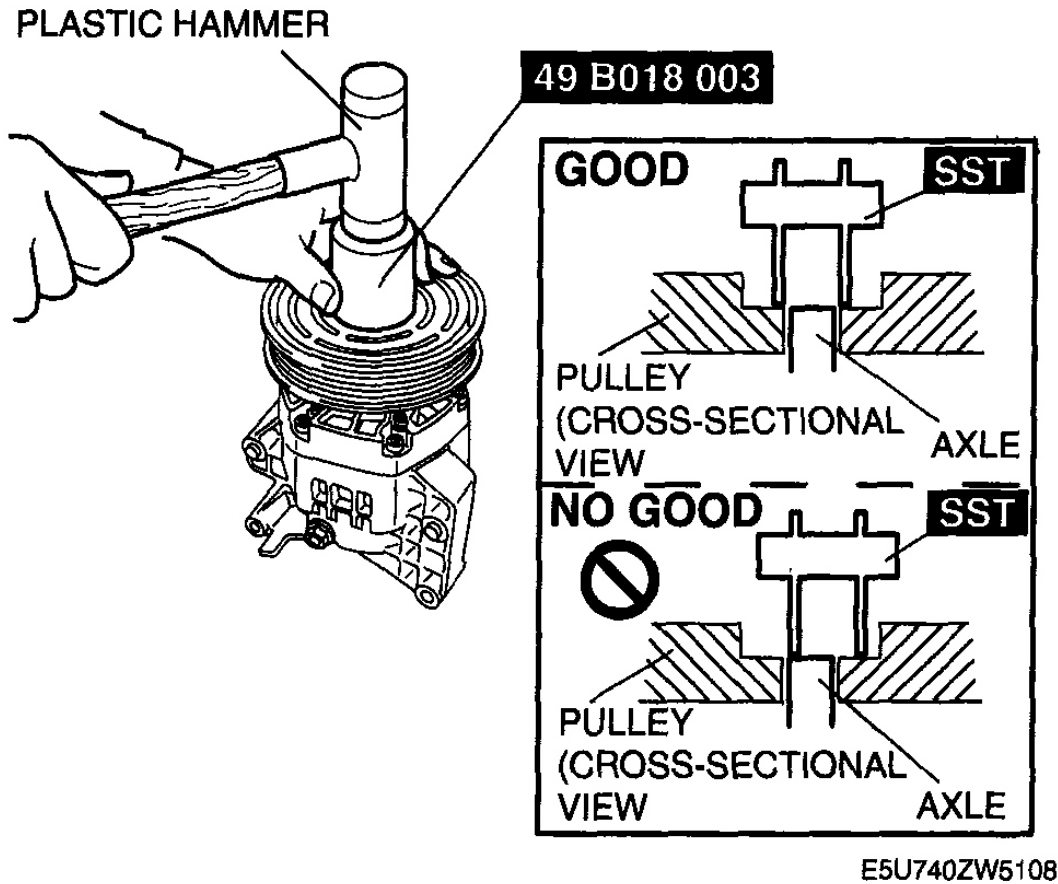


**Fig. 14: Aligning Positioning Pin With Hole Of A/C Compressor Body**  
Courtesy of MAZDA MOTORS CORP.

#### A/C COMPRESSOR PULLEY INSTALLATION NOTE

1. Install the inner wheel of the pulley using a plastic hammer and SST (49 B018 003) to the compressor.

- CAUTION:**
- If the SST is not properly positioned when the A/C compressor pulley is press-fit, the A/C compressor axle will interfere with the SST, possibly damaging component parts. Verify that the SST and axle are properly positioned and perform the procedure very carefully.

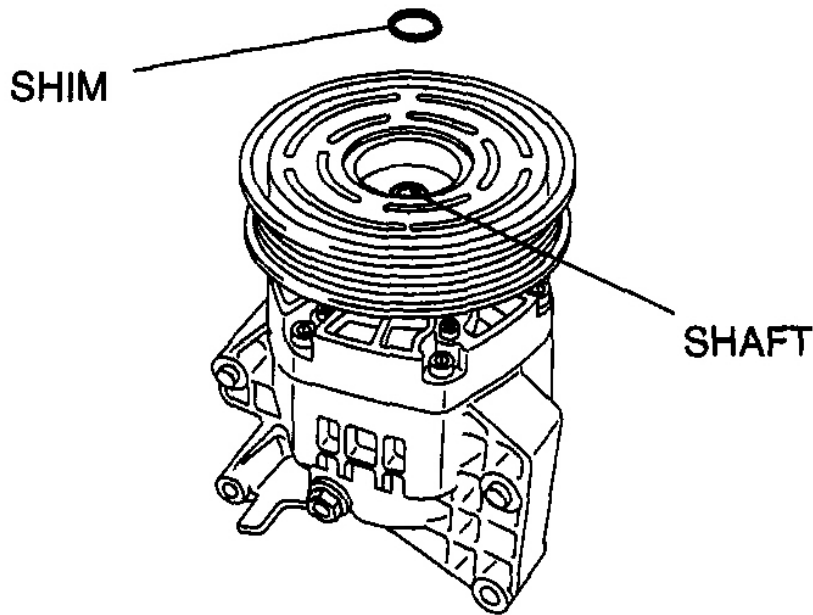


**Fig. 15: Installing Inner Wheel Of Pulley Using Plastic Hammer & SST To Compressor**  
Courtesy of MAZDA MOTORS CORP.

#### SHIM INSTALLATION NOTE

1. First, insert the 1 mm (0.039 in) thick shim into the shaft.





E5U740ZW5023

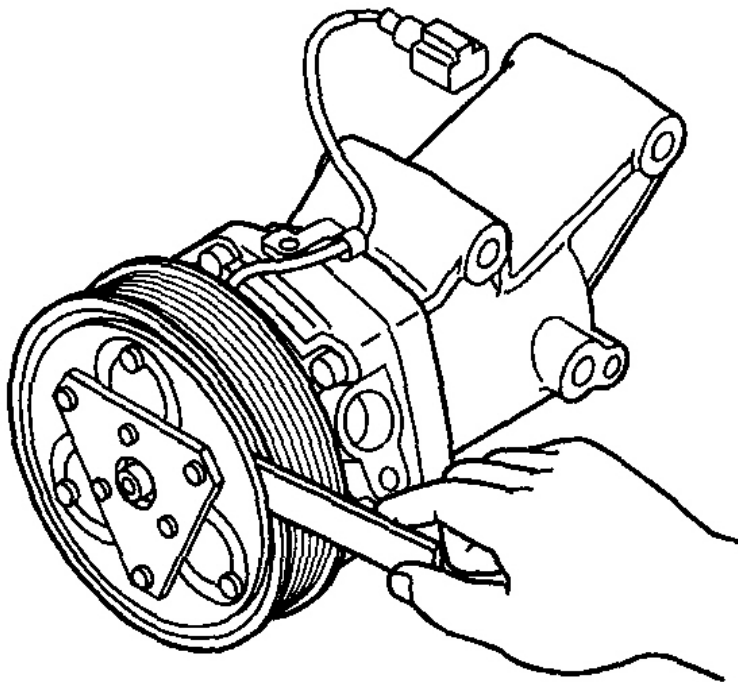
**Fig. 16: Inserting 1 MM Thick Shim Into Shaft**  
Courtesy of MAZDA MOTORS CORP.

## MAGNETIC CLUTCH ADJUSTMENT

1. Measure the clearance around the entire circumference between the pressure plate and A/C compressor pulley using a thickness gauge,
2. Inspect the clearance.
  - If not within the specification, adjust the clearance by changing the shim or the number of shims.

**Magnetic clutch clearance**

**0.3-0.6 mm {0.012-0.023 in}**

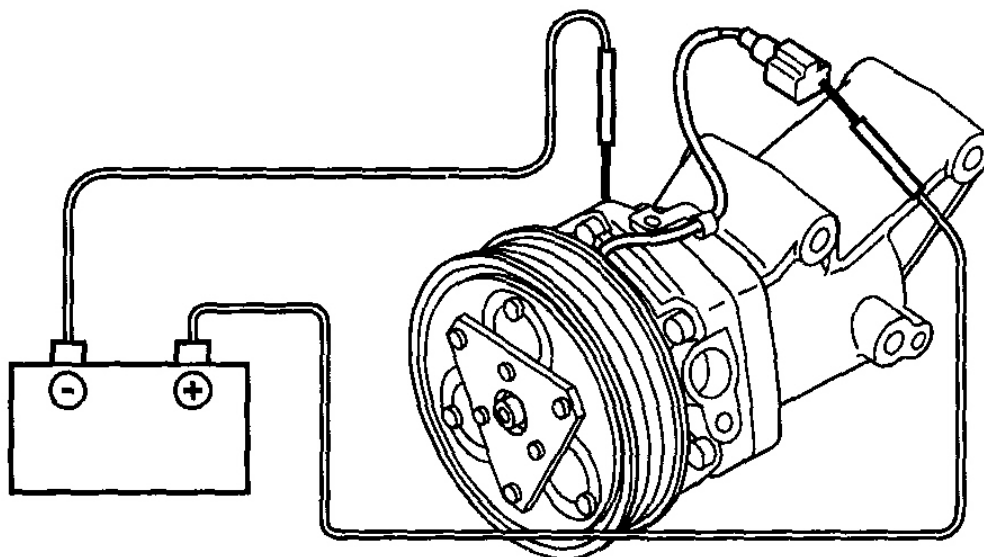


E5U740ZW5011

**Fig. 17: Measuring Clearance Around Entire Circumference Between Pressure Plate & A/C Compressor Pulley Using Thickness Gauge**  
Courtesy of MAZDA MOTORS CORP.

## **MAGNETIC CLUTCH INSPECTION**

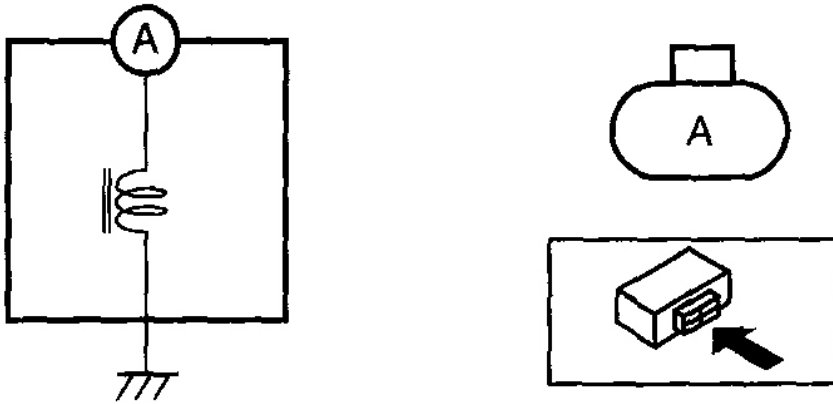
1. Connect battery positive voltage to magnetic clutch terminal A and ground.



E5U740ZW5012

**Fig. 18: Connecting Battery Positive Voltage To Magnetic Clutch Terminal A & Ground**  
Courtesy of MAZDA MOTORS CORP.

2. Verify that the magnetic clutch turns on.
  - If the magnetic clutch does not turn on, replace the A/C compressor.



E5U740ZW5013

**Fig. 19: Identifying Magnetic Clutch Connector**  
Courtesy of MAZDA MOTORS CORP.

## EVAPORATOR TEMPERATURE SENSOR REMOVAL/INSTALLATION

1. Remove the evaporator temperature sensor from the A/C unit. (See A/C UNIT DISASSEMBLY/ASSEMBLY .)

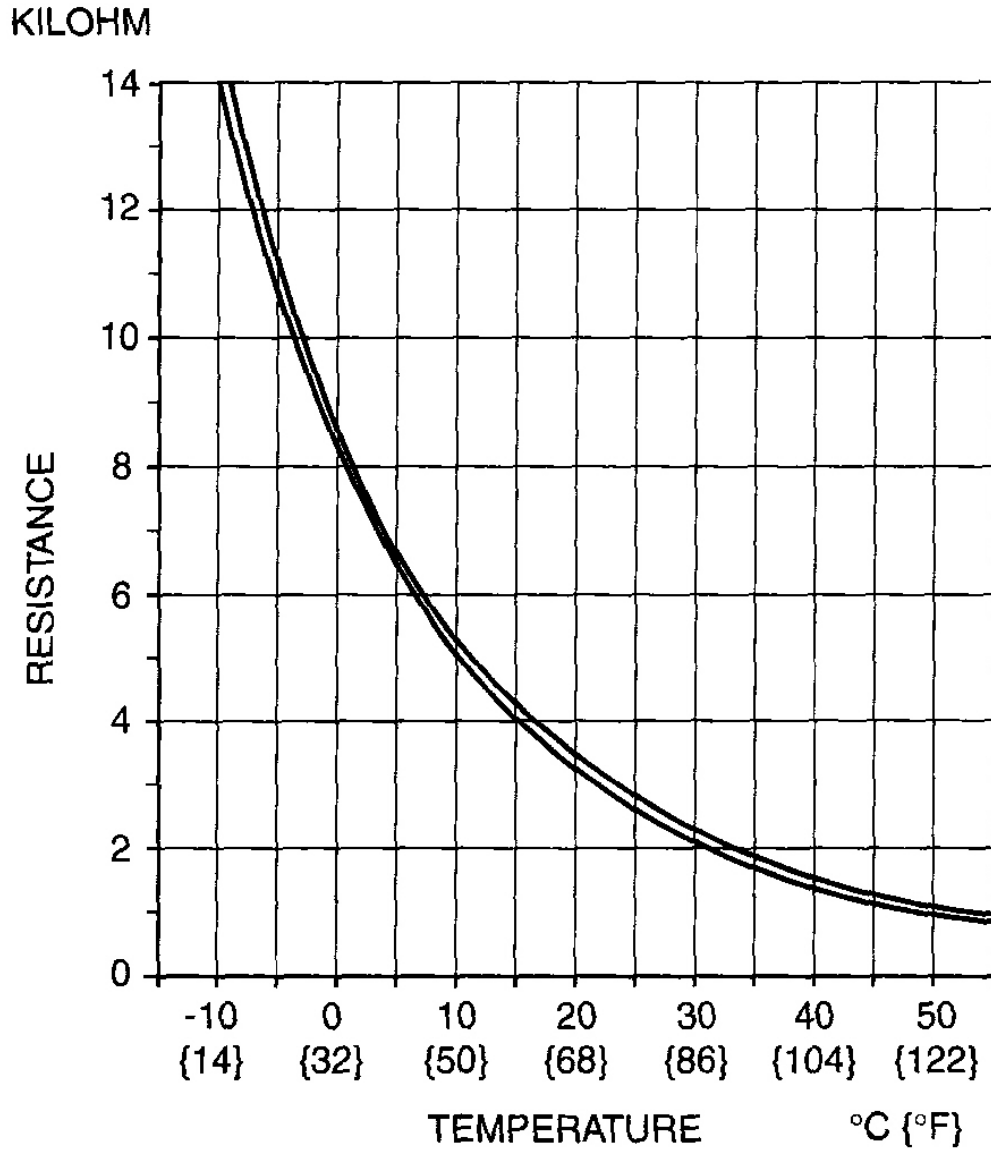
## EVAPORATOR TEMPERATURE SENSOR INSPECTION

**NOTE:**

- Inspect the evaporator temperature sensor when it is installed to the A/C unit.

1. Set the fan speed MAX-HI.
2. Set the temperature control to MAX COLD.
3. Set the air intake mode to RECIRCULATE.
4. Turn the A/C switch off.
5. Close all of the doors and roll up all the windows.
6. Wait for **5 min** .
7. Disconnect the evaporator temperature sensor connector.
8. Measure the temperature at the air intake.
9. Measure the resistance between evaporator temperature sensor terminals.

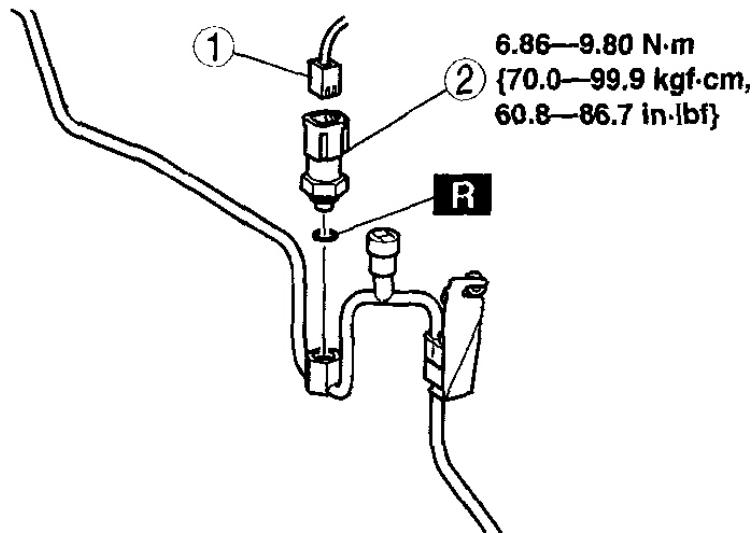
- If the characteristics of the evaporator temperature sensor are not as shown in **Fig. 20** , replace the evaporator temperature sensor.



E5U740ZW5014

**Fig. 20: Evaporator Temperature Sensor Graph**  
 Courtesy of MAZDA MOTORS CORP.

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Discharge the refrigerant from the system. (See **REFRIGERANT CHARGING** .)
4. Remove in the order indicated in **Fig. 21** .



E5U740ZW5026

|   |                                       |
|---|---------------------------------------|
| 1 | Refrigerant pressure switch connector |
| 2 | Refrigerant pressure switch           |

**Fig. 21: Removing Refrigerant Pressure Switch (With Torque Specifications)**  
Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

#### REFRIGERANT PRESSURE SWITCH INSTALLATION NOTE

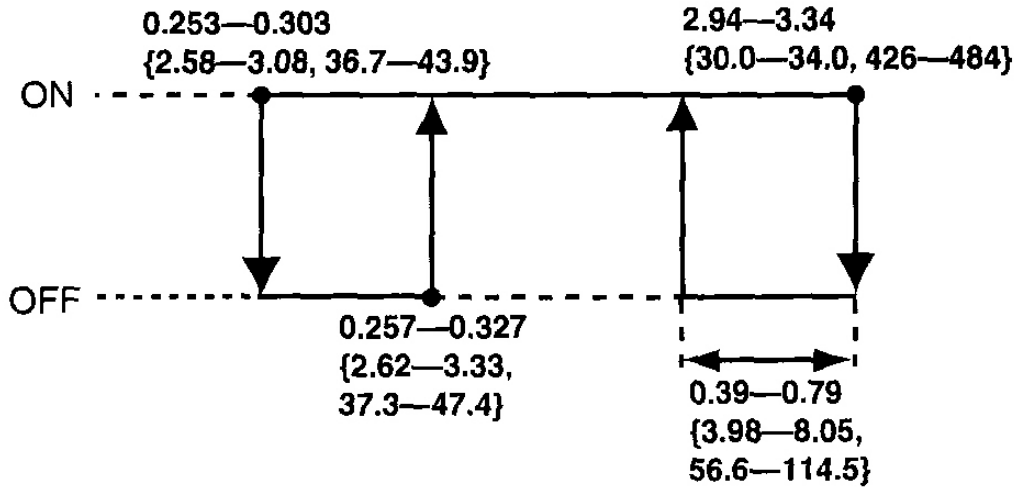
1. Apply compressor oil to the O-ring joints.

#### REFRIGERANT PRESSURE SWITCH INSPECTION

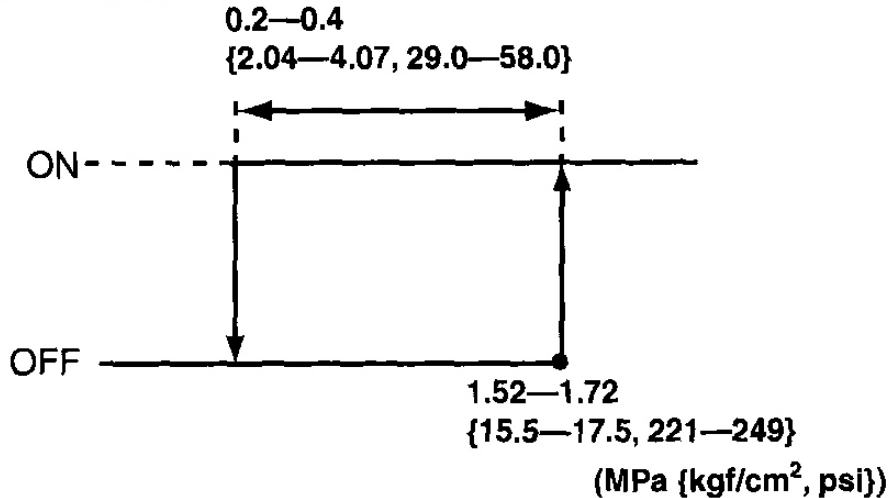
1. Connect the manifold gauge.
2. Verify the high-pressure side reading.
3. Disconnect the refrigerant pressure switch connector.
4. Verify continuity between the terminals of the refrigerant pressure switch.

- If the continuity is not normal, replace the refrigerant pressure switch.

HI AND LO PRESSURE

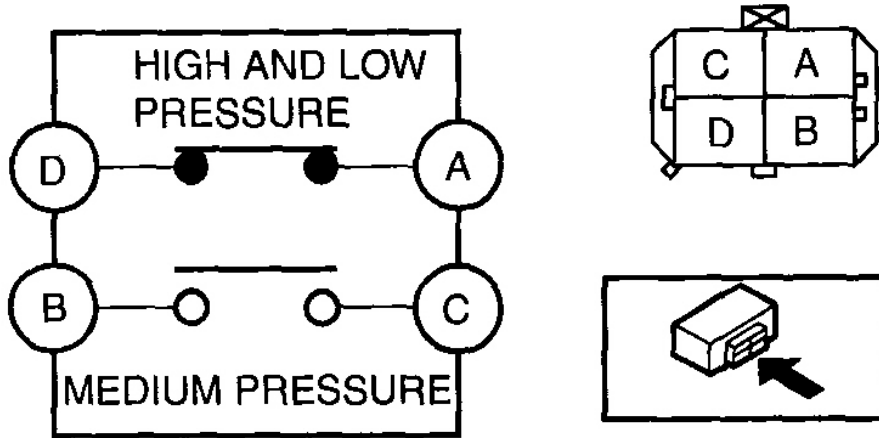


MEDIUM-PRESSURE



E5U711ZW5A09

**Fig. 22: Refrigerant Pressure Switch Specification**  
 Courtesy of MAZDA MOTORS CORP.



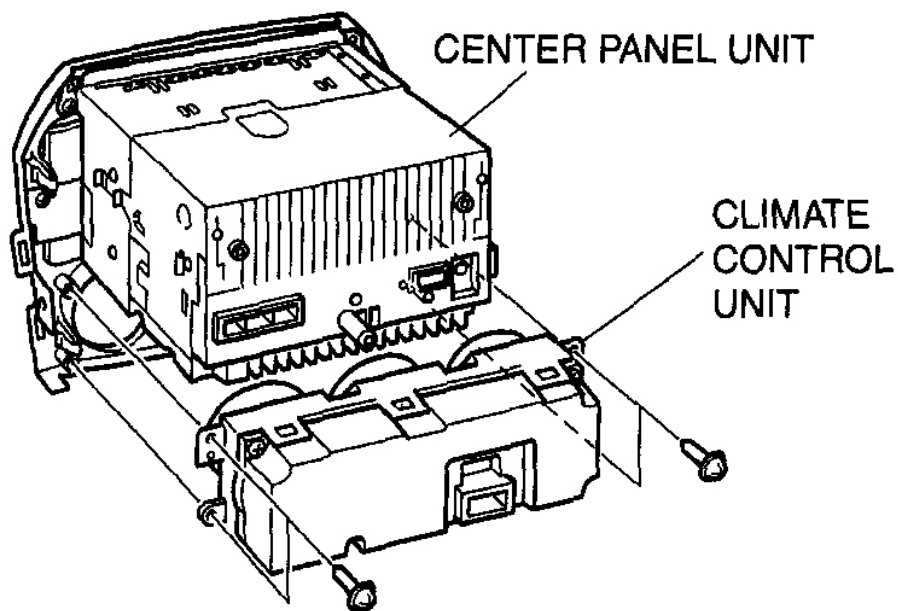
E5U740ZW5109

**Fig. 23: Refrigerant Pressure Switch Terminals**  
 Courtesy of MAZDA MOTORS CORP.

## CLIMATE CONTROL UNIT REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the side wall. (See **SIDE WALL REMOVAL/INSTALLATION** .)
4. Remove the center panel unit. (See **CENTER PANEL UNIT REMOVAL/INSTALLATION** .)
5. Remove the climate control unit from the center panel unit.
6. Install in the reverse order of removal.



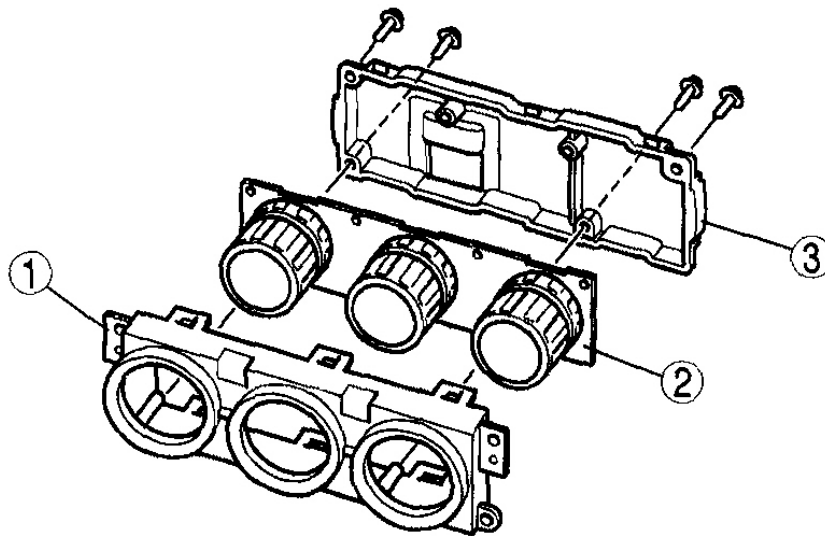


E5U740ZW5105

**Fig. 24: Removing Climate Control Unit From Center Panel Unit**  
Courtesy of MAZDA MOTORS CORP.

## CLIMATE CONTROL UNIT DISASSEMBLY/ASSEMBLY

1. Disassemble in the order indicated in **Fig. 25** .



E5U740ZW5017

|   |          |
|---|----------|
| 1 | Case (1) |
| 2 | Panel    |
| 3 | Case (2) |

**Fig. 25: Identifying Climate Control Unit Components**  
 Courtesy of MAZDA MOTORS CORP.

2. Assemble in the reverse order of disassembly.

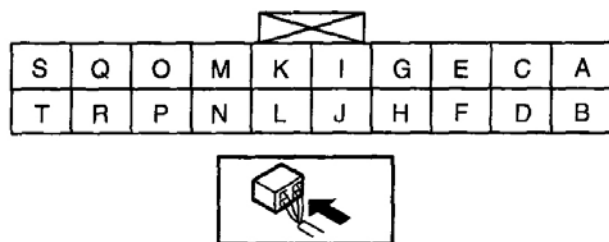
## CLIMATE CONTROL UNIT INSPECTION

1. Turn the ignition switch to the ON position.
2. Connect the negative (-) lead of the tester to body ground.
3. By inserting the positive (+) lead of the tester into each climate control unit terminal, measure the voltage according to **TERMINAL VOLTAGE REFERENCE TABLE** .
  - If there is any malfunction, inspect the parts under "Inspection item (s)".
    - If the parts under "Inspection item (s)" are found to be normal, replace the climate control unit.

## TERMINAL VOLTAGE TABLE (REFERENCE)

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**Fig. 26: Identifying Climate Control Unit Connector Terminals**  
 Courtesy of MAZDA MOTORS CORP.

### TERMINAL VOLTAGE REFERENCE TABLE

| Terminal | Signal name              | Connected to   | Measurement condition | Voltage (V) | Inspection item (s)  |
|----------|--------------------------|----------------|-----------------------|-------------|--|
| A        | IG2                      | A/C 7.5 A fuse | IG SW ON              | B+          | <ul style="list-style-type: none"> <li>Wiring harness: continuity, short circuit (Climate control unit-fuse: A-A/C 7.5 A)</li> <li>A/C 7.5 A fuse</li> </ul>       |
|          |                          |                | IG SW LOCK            | 1.0 or less | <ul style="list-style-type: none"> <li>Wiring harness: continuity, short circuit (Climate control unit-fuse: A-A/C 7.5 A)</li> </ul>                               |
| B        | B+                       | ROOM 15 A fuse | Under any condition   | B+          | <ul style="list-style-type: none"> <li>Wiring harness: continuity, short circuit (Climate control unit-fuse: B-ROOM 15 A)</li> <li>ROOM 15 A fuse</li> </ul>       |
| C        | Blower fan speed control | Power MOS FET  | Fan stopped           | 1.0 or less | <ul style="list-style-type: none"> <li>Wiring harness: continuity, short circuit (Climate control unit-power MOS FET: C-C)</li> <li>Power MOS FET</li> </ul>       |
|          |                          |                | Fan: manual LO        | 2.8         |  |
|          |                          |                | Fan: manual HI        | 9.9         |  |
| D        | TNS signal               | TNS relay      | Headlight switch OFF  | 1.0 or less | <ul style="list-style-type: none"> <li>Wiring harness: short circuit (Climate control unit-TNS relay: D-D)</li> <li>TNS relay</li> <li>Headlight switch</li> </ul> |
|          |                          |                |                       |             | <ul style="list-style-type: none"> <li>Wiring harness: continuity, short circuit</li> </ul>  |

## 2007 Mazda MX-5 Miata Sport

### 2007 HVAC Control System - MX-5 Miata

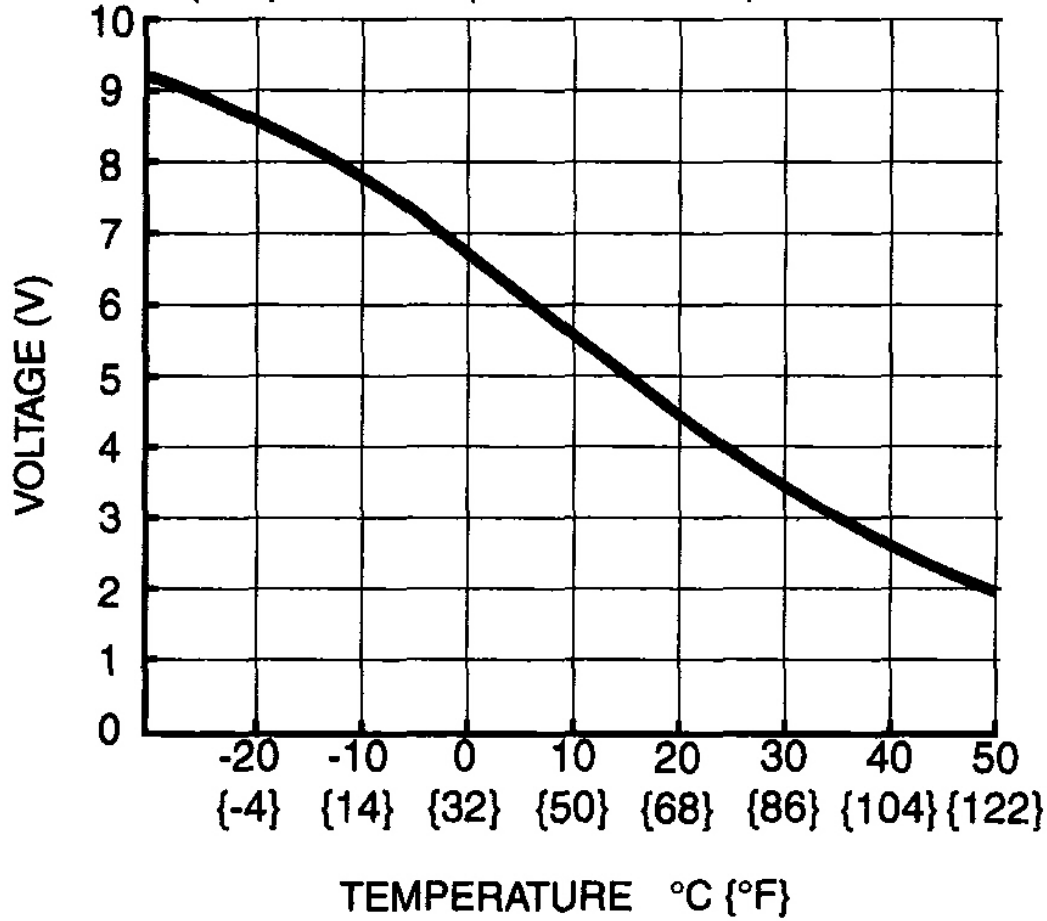
|   |                       |  |                      |             |   |
|---|-----------------------|--|----------------------|-------------|---|
|   |                       |  | Headlight switch ON  | B+          | (Climate control unit-TNS relay: D-D)<br><ul style="list-style-type: none"> <li>• TNS relay</li> <li>• Headlight switch</li> </ul>  |
| E | Blower motor feedback | Power MOS FET  | Fan stopped          | B+          | <ol style="list-style-type: none"> <li>1. Wiring harness: continuity, short circuit (Climate control unit-power MOS FET: E-B)</li> <li>2. Power MOS FET</li> <li>3. Blower motor</li> <li>4. Blower relay</li> <li>5. HEATER 40 A fuse</li> <li>6. Power MOS FET replacement</li> </ol>   |
|   |                       |  | Fan: manual LO       | 8.17        |   |
|   |                       |  | Fan: manual HI       | 0.6         |   |
| F | Panel control signal  | Instrument cluster   | Headlight switch OFF | 0           | <ul style="list-style-type: none"> <li>• Wiring harness: continuity (Climate control unit-instrument cluster: F-1F)</li> <li>• Instrument cluster</li> <li>• Climate control unit: terminal voltage (D)</li> </ul>  |
|   |                       |  | Headlight switch ON  | 2.7         | <ul style="list-style-type: none"> <li>• Wiring harness: short circuit (Climate control unit-instrument cluster: F-1F)</li> </ul>   |
| G | Actuator power        | <ul style="list-style-type: none"> <li>• Air intake actuator</li> <li>• Air mix actuator</li> <li>• Airflow mode actuator</li> </ul> | IG SW ON             | B+          | <ul style="list-style-type: none"> <li>• Wiring harness: continuity, short circuit (Climate control unit-air intake actuator, air mix actuator, air flow mode actuator: G-A, A, A)</li> <li>• Air intake actuator</li> <li>• Air mix actuator</li> <li>• Airflow mode actuator</li> </ul> |
|   |                       |  | IG SW LOCK           | 1.0 or less |   |
| H | GND                   | Body ground  | Under any condition  | 1.0 or less | <ul style="list-style-type: none"> <li>• Wiring harness: continuity (Climate control unit-GND: H-GND)</li> </ul>  |
| I | Plus Signal           | -  | -                    | -           | -   |
| J | -                     | -  | -                    | -           | -   |
|   |                       |  |                      |             | <ul style="list-style-type: none"> <li>• Wiring harness: short</li> </ul>   |

## 2007 Mazda MX-5 Miata Sport

### 2007 HVAC Control System - MX-5 Miata

|   |                                     |                               |   |                         |   |
|---|-------------------------------------|-------------------------------|---|-------------------------|---|
| K | A/C                                 | Refrigerant pressure switch   | A/C switch ON, fan switch at 1st                                    | 1.0 or less             | circuit (Climate control unit-refrigerant pressure switch: K-A)   |
|   |                                     |                               | A/C switch OFF  | B+                      | <ul style="list-style-type: none"> <li>• Wiring harness: continuity, short circuit (Climate control unit-refrigerant pressure switch: K-A) (Refrigerant pressure switch-PCM: C-1J)</li> <li>• Refrigerant pressure switch</li> <li>• PCM: terminal voltage (1J)</li> </ul>                |
| L | -                                   | -                             | -   | -                       | -   |
| M | Evaporator temperature sensor input | Evaporator temperature sensor | Compared with temperature detected by evaporator temperature sensor | Refer to <b>Fig. 27</b> | <ul style="list-style-type: none"> <li>• Wiring harness: continuity (Climate control unit-evaporator temperature sensor: M-B, S-A)</li> <li>• Wiring harness: short circuit (Climate control unit-evaporator temperature sensor: M-B)</li> <li>• Evaporator temperature sensor</li> </ul> |
| N | Rear window defroster operation     | Rear window defroster relay   | Rear window defroster switch OFF                                    | B+                      | <ul style="list-style-type: none"> <li>• Wiring harness: continuity, short circuit (Climate control unit-rear window defroster relay: N-E)</li> <li>• Rear window defroster relay</li> </ul>  |
|   |                                     |                               | Rear window defroster switch ON                                     | 1.0 or less             |   |
| O | -                                   | -                             | -   | -                       | -   |
| P | -                                   | -                             | -   | -                       | -   |
| Q | -                                   | -                             | -   | -                       | -   |
| R | -                                   | -                             | -   | -                       | -   |
| S | Sensor GND                          | Evaporator temperature sensor | Under any condition   | 1.0 or less             | <ul style="list-style-type: none"> <li>• Wiring harness: continuity (Climate control unit-GND: S-GND)</li> </ul>  |
| T | -                                   | -                             | -   | -                       | -   |

GRAPH 1 (Evaporator temperature sensor)



**Fig. 27: Evaporator Temperature Sensor Voltage Vs. Temperature (Graph 1)**  
Courtesy of MAZDA MOTORS CORP.