

**2008 Mazda CX-9 Grand Touring**

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

**2008 BODY & ACCESSORIES**

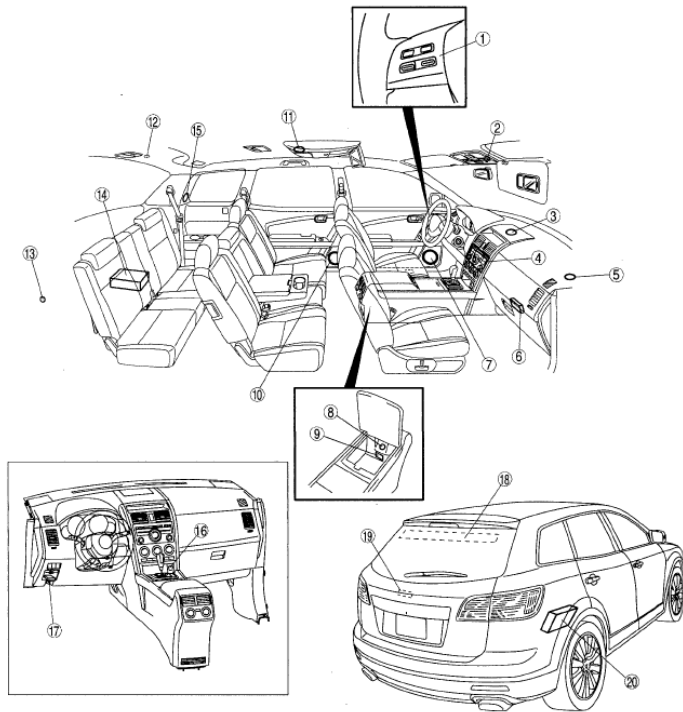
**Entertainment - Mazda CX-9**

**ENTERTAINMENT LOCATION INDEX**

**AUDIO SYSTEM**

# 2008 Mazda CX-9 Grand Touring

## 2008 BODY & ACCESSORIES Entertainment - Mazda CX-9



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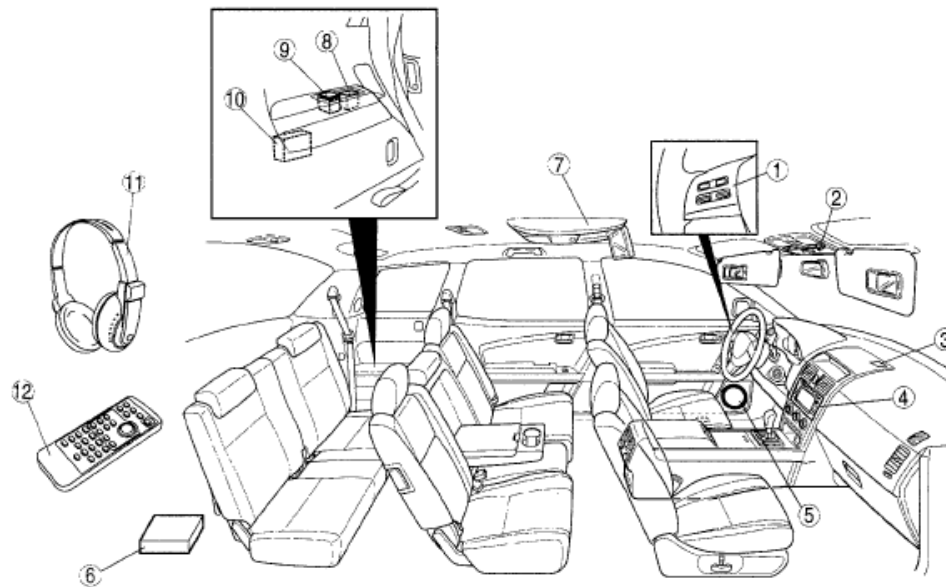
1	Audio control switch (See 09-20-20 AUDIO CONTROL SWITCH REMOVAL/INSTALLATION.) (See 09-20-20 AUDIO CONTROL SWITCH INSPECTION.)	12	Condenser (See 09-20-16 CONDENSER REMOVAL/INSTALLATION.)
2	Microphone (See 09-20-21 MICROPHONE REMOVAL/INSTALLATION.)	13	Rear accessory socket (See 09-20-26 ACCESSORY SOCKET REMOVAL/INSTALLATION.) (See 09-20-27 ACCESSORY SOCKET INSPECTION.)
3	Center speaker (See 09-20-12 CENTER SPEAKER REMOVAL/INSTALLATION.) (See 09-20-12 CENTER SPEAKER INSPECTION.)	14	Bass-box (See 09-20-15 BASS-BOX REMOVAL/INSTALLATION.) (See 09-20-15 BASS-BOX INSPECTION.)
4	Audio unit (See 09-20-7 AUDIO UNIT REMOVAL/INSTALLATION.) (See 09-20-7 AUDIO UNIT DISASSEMBLY/ASSEMBLY.) (See 09-20-8 ACTION ILLUMINATION ON/OFF SWITCHING.)	15	Rear speaker (See 09-20-12 REAR SPEAKER REMOVAL/INSTALLATION.) (See 09-20-13 REAR SPEAKER INSPECTION.)
5	Front speaker (with Bose®) (See 09-20-11 FRONT SPEAKER REMOVAL/INSTALLATION.) (See 09-20-11 FRONT SPEAKER INSPECTION.) Tweeter (without Bose®) (See 09-20-13 TWEETER REMOVAL/INSTALLATION.) (See 09-20-14 TWEETER INSPECTION.)	16	Front accessory socket (See 09-20-26 ACCESSORY SOCKET REMOVAL/INSTALLATION.) (See 09-20-27 ACCESSORY SOCKET INSPECTION.)
6	Hands-free telephone unit (See 09-20-25 HANDS-FREE TELEPHONE (HF/TEL) UNIT REMOVAL/INSTALLATION.)	17	AudiPilot microphone (See 09-20-16 AUDIOPILOT MICROPHONE REMOVAL/INSTALLATION.)
7	Front door speaker (See 09-20-9 FRONT DOOR SPEAKER REMOVAL/INSTALLATION.) (See 09-20-10 FRONT DOOR SPEAKER INSPECTION.)	18	Glass antenna (See 09-20-17 GLASS ANTENNA INSPECTION.)
8	Center accessory socket (See 09-20-26 ACCESSORY SOCKET REMOVAL/INSTALLATION.) (See 09-20-27 ACCESSORY SOCKET INSPECTION.)	19	Noise filter (See 09-20-17 NOISE FILTER REMOVAL/INSTALLATION.) (See 09-20-17 NOISE FILTER INSPECTION.)
9	Auxiliary jack (See 09-20-23 AUXILIARY TERMINAL UNIT REMOVAL/INSTALLATION.)	20	Audio amplifier (See 09-20-8 AUDIO AMPLIFIER REMOVAL/INSTALLATION.) (See 09-20-9 AUDIO AMPLIFIER CONFIGURATION.)
10	Rear door speaker (See 09-20-10 REAR DOOR SPEAKER REMOVAL/INSTALLATION.) (See 09-20-11 REAR DOOR SPEAKER INSPECTION.)		
11	Roof speaker (See 09-20-13 ROOF SPEAKER REMOVAL/INSTALLATION.) (See 09-20-13 ROOF SPEAKER INSPECTION.)		

**Fig. 1: Identifying Audio System Components Location**  
 Courtesy of MAZDA MOTORS CORP.

**CAR-NAVIGATION SYSTEM, REAR ENTERTAINMENT SYSTEM**

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9



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1	Audio control switch (See 09-20-20 AUDIO CONTROL SWITCH REMOVAL/INSTALLATION.) (See 09-20-20 AUDIO CONTROL SWITCH INSPECTION.)
2	Microphone (See 09-20-21 MICROPHONE REMOVAL/INSTALLATION.)
3	GPS antenna (See 09-20-19 GPS ANTENNA FEEDER INSPECTION.)
4	Audio unit (See 09-20-7 AUDIO UNIT REMOVAL/INSTALLATION.)
5	Front door speaker (See 09-20-9 FRONT DOOR SPEAKER REMOVAL/INSTALLATION.) (See 09-20-10 FRONT DOOR SPEAKER INSPECTION.)
6	Car-navigation unit (See 09-20-8 CAR-NAVIGATION UNIT REMOVAL/INSTALLATION.)

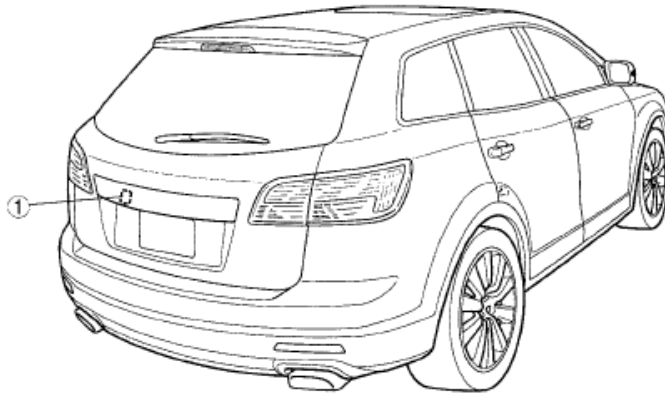
7	RES unit (See 09-20-22 RES UNIT REMOVAL/INSTALLATION.)
8	Auxiliary terminal unit (See 09-20-23 AUXILIARY TERMINAL UNIT REMOVAL/INSTALLATION.)
9	Power supply socket (See 09-20-23 POWER SUPPLY SOCKET REMOVAL/INSTALLATION.)
10	Inverter (See 09-20-24 INVERTER REMOVAL/INSTALLATION.) (See 09-20-24 INVERTER INSPECTION.)
11	Headphone (See 09-20-22 HEADPHONE BATTERY REPLACEMENT.)
12	Remote controller (See 09-20-23 REMOTE CONTROLLER BATTERY REPLACEMENT.)

**Fig. 2: Identifying Car-Navigation System Components Location**  
 Courtesy of MAZDA MOTORS CORP.

### REAR VIEW MONITOR

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

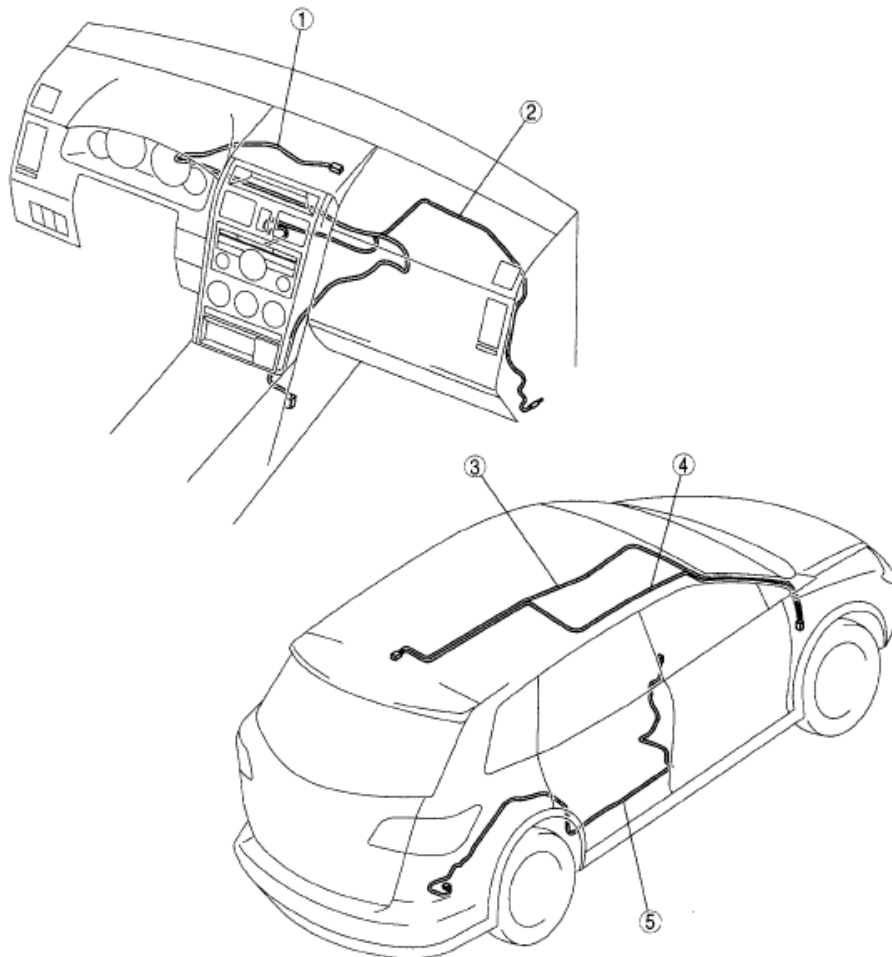


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- |   |  |
|---|--|
| 1 | Rear mount camera<br>(See 09-20-25 REAR MOUNT CAMERA<br>REMOVAL/INSTALLATION.) |
|---|--|

**Fig. 3: Identifying Rear Mount Camera**  
Courtesy of MAZDA MOTORS CORP.

**ANTENNA FEEDER**



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1	GPS antenna feeder No.1 (See 09-20-19 GPS ANTENNA FEEDER INSPECTION.)
2	Front antenna feeder (See 09-20-19 FRONT ANTENNA FEEDER INSPECTION.)
3	Rear antenna feeder (without sunroof) (See 09-20-19 REAR ANTENNA FEEDER INSPECTION.)

4	Rear antenna feeder (with sunroof) (See 09-20-19 REAR ANTENNA FEEDER INSPECTION.)
5	GPS antenna feeder No.2 (See 09-20-19 GPS ANTENNA FEEDER INSPECTION.)

**Fig. 4: Identifying Antenna Feeder**  
Courtesy of MAZDA MOTORS CORP.

## AUDIO UNIT REMOVAL/INSTALLATION

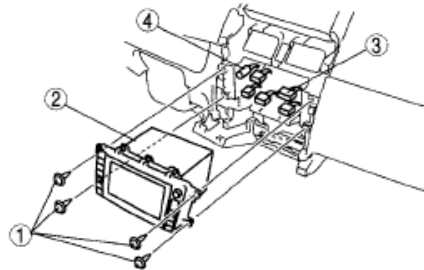
1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Front console box mat (See **FRONT CONSOLE BOX MAT REMOVAL/INSTALLATION** .)
  2. Indicator panel (See **INDICATOR PANEL REMOVAL/INSTALLATION** .)
  3. Decoration panel (See **DECORATION PANEL REMOVAL/INSTALLATION** .)
  4. Front console box (See **FRONT CONSOLE BOX REMOVAL/INSTALLATION** .)

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

5. Center panel (See **CENTER PANEL REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Screw
2	Audio unit (See 09-20-7 Audio Unit Removal Note.)
3	Connector
4	Antenna feeder



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**Fig. 5: Identifying Audio Unit Remove/Install Components**  
Courtesy of MAZDA MOTORS CORP.

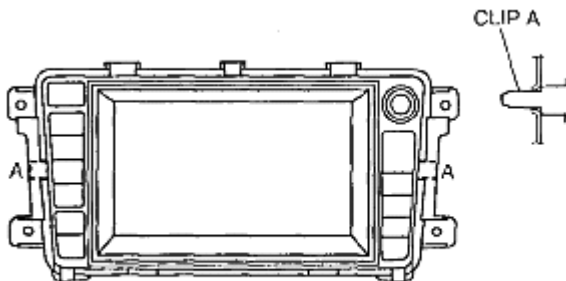
4. Install in the reverse order of removal.

**CAUTION:**

- When installing the Audio unit, make sure that the wiring harness and antenna feeder are not caught between the unit and dashboard. If the wiring harness or the antenna feeder is caught between the unit and dashboard, it may cause malfunctions.

### AUDIO UNIT REMOVAL NOTE

1. Pull the audio unit outward, detach clip A from the dashboard, and then remove the audio unit.



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**Fig. 6: Identifying Audio Unit**  
Courtesy of MAZDA MOTORS CORP.

### AUDIO UNIT DISASSEMBLY/ASSEMBLY

#### STANDARD AUDIO

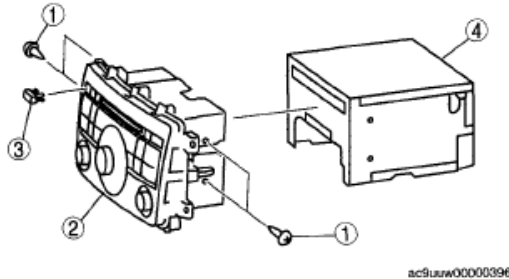
**CAUTION:**

- Before disassembling the audio unit, spread a cloth on the floor to

put the disassembled parts on. This protects the surface of the panel from scratches or dirt.

1. Disassemble in the order indicated in the table.

1	Screw
2	Audio panel
3	Cover
4	Base unit



**Fig. 7: Exploded View Of Audio Unit**  
Courtesy of MAZDA MOTORS CORP.

2. Assemble in the reverse order of disassembly.

## ACTION ILLUMINATION ON/OFF SWITCHING

### STANDARD AUDIO

**NOTE:**

- The action illumination\* can be switched on and off by performing the following procedure.

1. Turn the ignition switch to the ON position.
2. Turn the audio on.
3. Press the audio control dial 7 times.
4. Turn the audio control dial to the left and right to switch the action illumination ON/OFF.

\* : May or may not be equipped, depends on the vehicle.



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**Fig. 8: Turning Audio Control Dial To Left & Right**  
Courtesy of MAZDA MOTORS CORP.

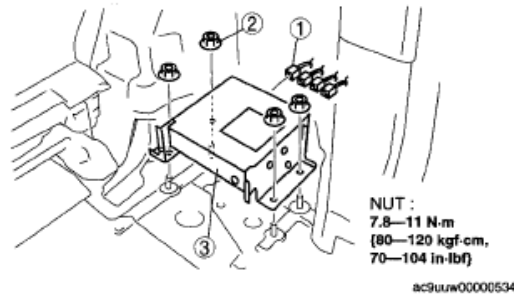
## CAR-NAVIGATION UNIT REMOVAL/INSTALLATION

### NOTE:

- Car-navigation unit is located on the right side of the trunk box under the trunk board.

1. Disconnect the negative battery cable.
2. Remove the trunk box. (See **TRUNK BOX REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Connector
2	Nut
3	Car-navigation unit



**Fig. 9: Identifying Car-Navigation Unit Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

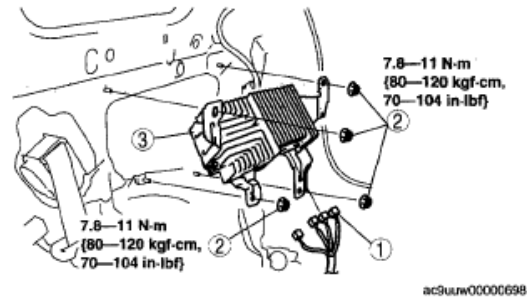
4. Install in the reverse order of removal.

## AUDIO AMPLIFIER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Trunk box (See **TRUNK BOX REMOVAL/INSTALLATION** .)
  2. Seat side box (RH) (See **SEAT SIDE BOX REMOVAL/INSTALLATION** .)
  3. Trunk end trim (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
  4. Third-row seat (RH) (See **THIRD-ROW SEAT REMOVAL/INSTALLATION** .)
  5. Rear scuff plate inner (RH) (See **REAR SCUFF PLATE REMOVAL/INSTALLATION** .)
  6. Third-row seat belt lower anchor installation bolt (Passenger Side) (See **THIRD-ROW SEAT BELT REMOVAL/INSTALLATION** .)
  7. Trunk side trim (RH) (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.



1	Connector
2	Nut
3	Audio amplifier



**Fig. 10: Identifying Audio Amplifier Components & Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

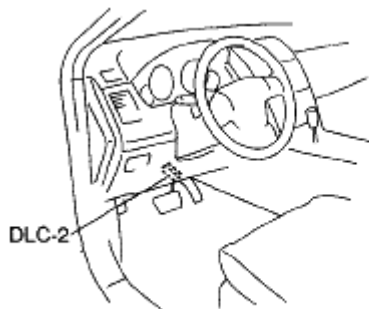
4. Install in the reverse order of removal.

## AUDIO AMPLIFIER CONFIGURATION

**NOTE:**

- Use the IDS (laptop PC) because the PDS (Pocket PC) does not support the **AUDIO AMPLIFIER CONFIGURATION**.

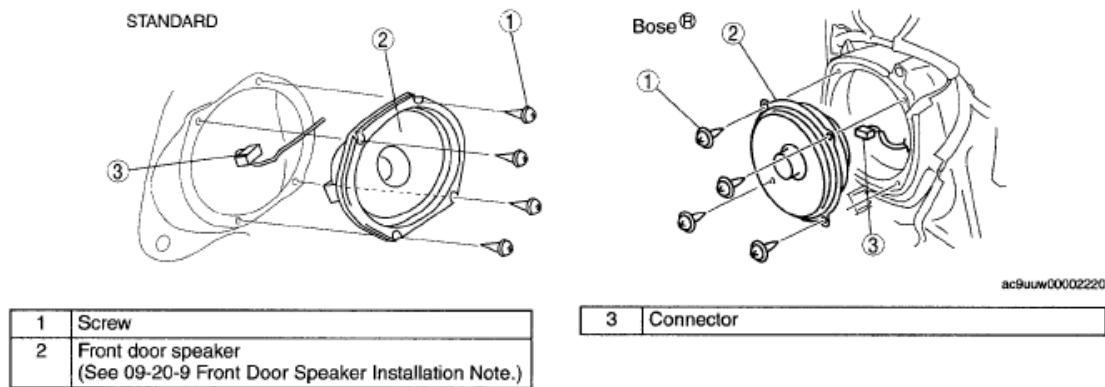
1. Connect the M-MDS to DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.
  - When using the IDS (laptop PC)
    1. Select "Module Programming".
3. Then, select items from the screen menu in the following order.
  1. Select "Programmable Module Installation".
  2. Select "AM".
4. Perform the configuration according to the directions on the screen.
5. Retrieve DTCs by the M-MDS, then verify that there is no DTC present.
  - If a DTC (s) is detected, perform the applicable DTC inspection. (See **DTC TABLE [AUDIO AMPLIFIER]** .)



**Fig. 11: Identifying Data Link Connector 2**  
 Courtesy of MAZDA MOTORS CORP.

## FRONT DOOR SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the inner garnish. (See INNER GARNISH REMOVAL/INSTALLATION .)
3. Remove the front door trim. (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



**Fig. 12: Identifying Front Door Speaker Components**  
Courtesy of MAZDA MOTORS CORP.

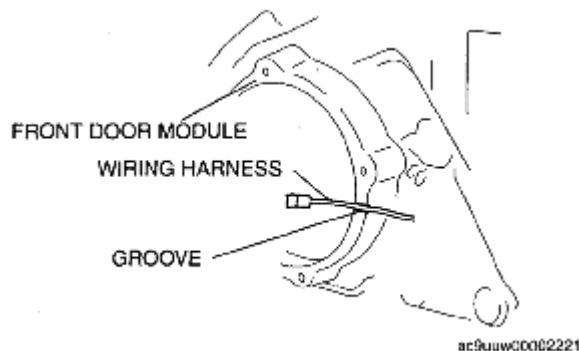
5. Install in the reverse order of removal.

## FRONT DOOR SPEAKER INSTALLATION NOTE

1. Remove the speaker with the wiring harness passing through the groove of the front door module.

**CAUTION:**

- If the speaker is installed with the wiring harness out of the groove, an open circuit in the wiring harness could occur.



**Fig. 13: Identifying Front Door Module & Wiring Harness**  
Courtesy of MAZDA MOTORS CORP.

## FRONT DOOR SPEAKER INSPECTION

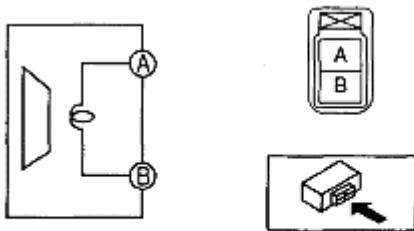
1. Verify the resistance between front door speaker terminals.
  - If the resistance is not within the specification, replace the front door speaker.

**Resistance**

**Standard: 4 ohms**

**Bose®: 2 ohms**

2. Connect a **1.5 V** battery to the front door speaker and verify that noise is heard from the front door speaker.
  - If no noise is heard, replace the front door speaker.

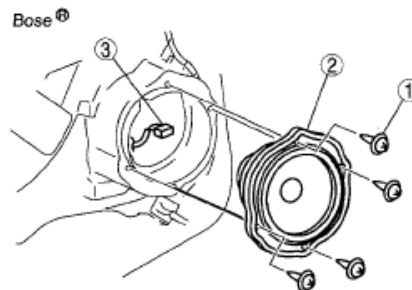
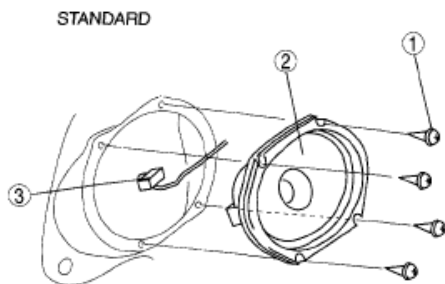


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**Fig. 14: Identifying Front Door Speaker Terminals**  
 Courtesy of MAZDA MOTORS CORP.

**REAR DOOR SPEAKER REMOVAL/INSTALLATION**

1. Disconnect the negative battery cable.
2. Remove the inner sail garnish. (See INNER SAIL GARNISH REMOVAL/INSTALLATION .)
3. Remove the rear door trim. (See REAR DOOR TRIM REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



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1	Screw
2	Rear door speaker (See 09-20-10 Rear Door Speaker Installation Note.)

3	Connector
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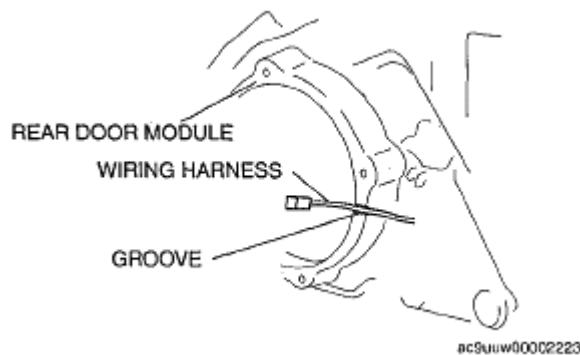
**Fig. 15: Identifying Rear Door Speaker Components**  
Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

**REAR DOOR SPEAKER INSTALLATION NOTE**

1. Remove the speaker with the wiring harness passing through the groove of the rear door module.

- CAUTION:**
- If the speaker is installed with the wiring harness out of the groove, an open circuit in the wiring harness could occur.



**Fig. 16: Identifying Rear Door Module & Wiring Harness**  
Courtesy of MAZDA MOTORS CORP.

**REAR DOOR SPEAKER INSPECTION**

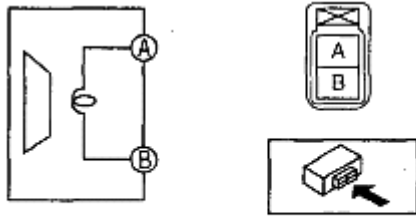
1. Verify the resistance between rear door speaker terminals.
  - If the resistance is not within the specification, replace the rear door speaker.

**Resistance**

**Standard: 4 ohms**

**Bose®: 2 ohms**

2. Connect a 1.5 V battery to the rear door speaker and verify that noise is heard from the rear door speaker.
  - If no noise is heard, replace the rear door speaker.



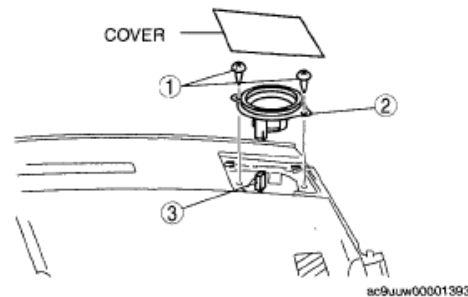
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**Fig. 17: Identifying Rear Door Speaker Terminals**  
Courtesy of MAZDA MOTORS CORP.

## FRONT SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the cover from the dashboard using a flathead screwdriver wrapped with protective tape.
3. Remove the solar radiation sensor. (LH) (See **SOLAR RADIATION SENSOR REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in the table.

1	Screw
2	Front speaker
3	Connector



**Fig. 18: Identifying Front Speaker Components**  
Courtesy of MAZDA MOTORS CORP.

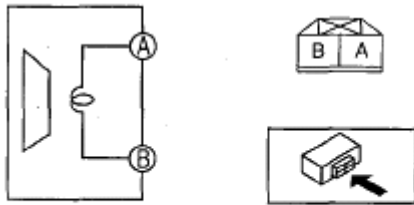
5. Install in the reverse order of removal.

## FRONT SPEAKER INSPECTION

1. Verify the resistance between front speaker terminals.
  - If the resistance is not within the specification, replace the front speaker.

**Resistance 3.6 ohms**

2. Connect a **1.5 V** battery to the front speaker and verify that noise is heard from the front speaker.
  - If no noise is heard, replace the front speaker.



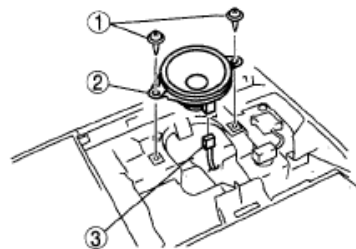
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**Fig. 19: Identifying Front Speaker Terminals**  
Courtesy of MAZDA MOTORS CORP.

## CENTER SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Front console box mat (See **FRONT CONSOLE BOX MAT REMOVAL/INSTALLATION** .)
  2. Indicator panel (See **INDICATOR PANEL REMOVAL/INSTALLATION** .)
  3. Decoration panel (See **DECORATION PANEL REMOVAL/INSTALLATION** .)
  4. Front console box (See **FRONT CONSOLE BOX REMOVAL/INSTALLATION** .)
  5. Center panel (See **CENTER PANEL REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Screw
2	Speaker
3	Connector



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**Fig. 20: Identifying Center Speaker Components**  
Courtesy of MAZDA MOTORS CORP.

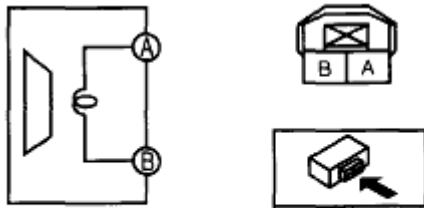
4. Install in the reverse order of removal.

## CENTER SPEAKER INSPECTION

1. Verify the resistance between center speaker terminals.
  - If the resistance is not within the specification, replace the center speaker.

**Resistance 3.6 ohms**

2. Connect a **1.5 V** battery to the center speaker and verify that noise is heard from the center speaker.
  - If no noise is heard, replace the center speaker.



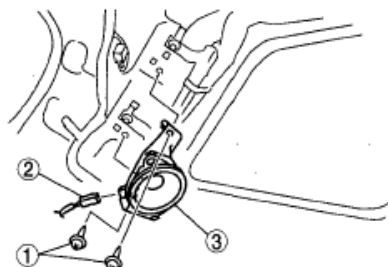
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**Fig. 21: Identifying Center Speaker Terminals**  
 Courtesy of MAZDA MOTORS CORP.

## REAR SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Trunk box (See **TRUNK BOX REMOVAL/INSTALLATION** .)
  2. Seat side box (See **SEAT SIDE BOX REMOVAL/INSTALLATION** .)
  3. Trunk end trim (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
  4. Third-row seat (See **THIRD-ROW SEAT REMOVAL/INSTALLATION** .)
  5. Third-row seat belt lower anchor installation bolt (See **THIRD-ROW SEAT BELT REMOVAL/INSTALLATION** .)
  6. Rear scuff plate inner (See **REAR SCUFF PLATE REMOVAL/INSTALLATION** .)
  7. Trunk side trim (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
  8. Roof side trim (See **ROOF SIDE TRIM REMOVAL/INSTALLATION** .)
  9. Third-row seat belt upper anchor installation bolt (See **THIRD-ROW SEAT BELT REMOVAL/INSTALLATION** .)
  10. D-pillar trim (See **D-PILLAR TRIM REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Screw
2	Connector
3	Rear speaker



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**Fig. 22: Identifying Rear Speaker Components**

Courtesy of MAZDA MOTORS CORP.

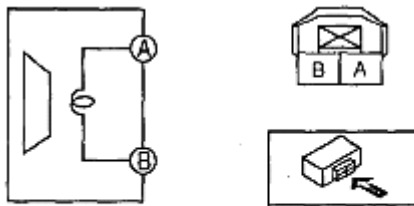
4. Install in the reverse order of removal.

## REAR SPEAKER INSPECTION

1. Verify the resistance between rear speaker terminals.
  - If the resistance is not within the specification, replace the rear speaker.

**Resistance 3.6 ohms**

2. Connect a **1.5 V** battery to the rear speaker and verify that noise is heard from the rear speaker.
  - If no noise is heard, replace the rear speaker.



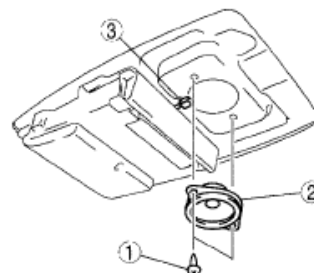
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**Fig. 23: Identifying Rear Speaker Terminals**  
Courtesy of MAZDA MOTORS CORP.

## ROOF SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the RES unit cover. (See **RES UNIT REMOVAL/INSTALLATION.**)
3. Remove in the order indicated in the table.

1	Screw
2	Speaker
3	Connector



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**Fig. 24: Identifying Roof Speaker Components**  
Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

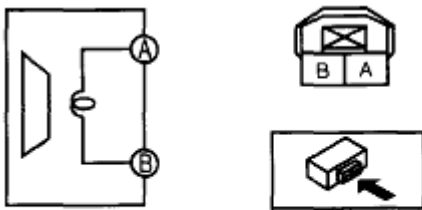


## ROOF SPEAKER INSPECTION

1. Verify the resistance between roof speaker terminals.
  - If the resistance is not within the specification, replace the roof speaker.

**Resistance 3.6 ohms**

2. Connect a 1.5 V battery to the roof speaker and verify that noise is heard from the roof speaker.
  - If no noise is heard, replace the roof speaker.



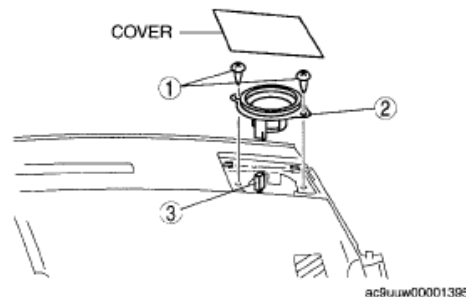
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**Fig. 25: Identifying Roof Speaker Terminals**  
Courtesy of MAZDA MOTORS CORP.

## TWEETER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the cover from the dashboard using a flathead screwdriver wrapped with protective tape.
3. Remove the solar radiation sensor. (LH) (See **SOLAR RADIATION SENSOR REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in the table.

1	Screw
2	Tweeter
3	Connector



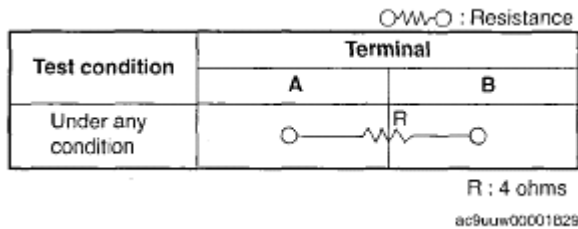
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**Fig. 26: Identifying Tweeter Components**  
Courtesy of MAZDA MOTORS CORP.

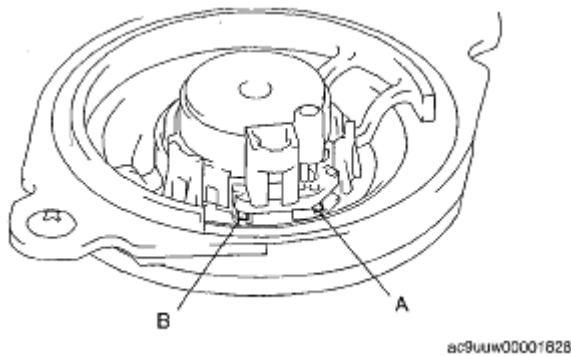
5. Install in the reverse order of removal.

## TWEETER INSPECTION

1. Verify the resistance between tweeter terminals.
  - If the resistance is not within the specification, replace the tweeter.



**Fig. 27: Tweeter Terminals Resistance Chart**  
Courtesy of MAZDA MOTORS CORP.



**Fig. 28: Identifying Tweeter Terminals**  
Courtesy of MAZDA MOTORS CORP.

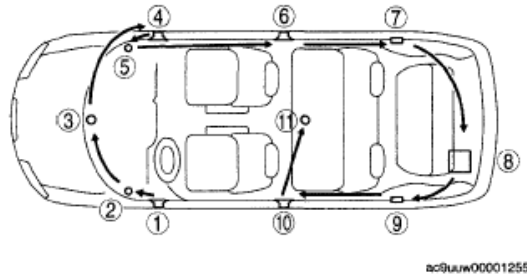
## SPEAKER CONNECTION INSPECTION [WITH BOSE®]

1. Turn the ignition switch to the ACC or ON position.
2. While pressing the POWER button, simultaneously press the AUDIO button for 2 s or more.
3. Input diagnosis code "03" and select the "ENTER".
4. Verify that each speaker outputs sound in the following order.

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

1	Front door speaker (LH)
2	Front speaker (LH)
3	Center speaker*
4	Front door speaker (RH)
5	Front speaker (RH)
6	Rear door speaker (RH)
7	Rear speaker (RH)*
8	Bass-box*
9	Rear speaker (LH)*
10	Rear door speaker (LH)
11	Roof Speaker*



**Fig. 29: Identifying Speaker Outputs Sound Order**  
 Courtesy of MAZDA MOTORS CORP.

\* : Setting depends on the model.

**NOTE:**

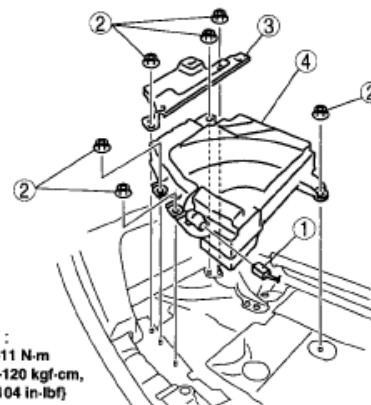
- If the sound is not output normally, inspect the following parts:
  - Malfunctioning speaker
  - Wiring harness between audio unit and malfunctioning speaker

5. Turn the audio off or the ignition switch to the LOCK position to end the connection inspection.

### BASS-BOX REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk box. (See **TRUNK BOX REMOVAL/INSTALLATION** .)
3. Remove the seat side box. (See **SEAT SIDE BOX REMOVAL/INSTALLATION** .)
4. Remove the trunk end trim. (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
5. Remove in the order indicated in the table.

1	Connector
2	Nut
3	Bass-box cover
4	Bass-box



NUT :  
 7.8—11 N·m  
 (80—120 kgf·cm,  
 70—104 in·lbf)

ac9uuw0000399

**Fig. 30: Identifying Bass-Box Components & Torque Specifications**

Courtesy of MAZDA MOTORS CORP.

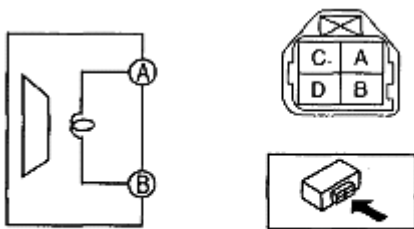
6. Install in the reverse order of removal.

## BASS-BOX INSPECTION

1. Verify the resistance between bass-box terminals.
  - If the resistance is not within the specification, replace the bass-box.

**Resistance 4 ohms**

2. Connect a **1.5 V** battery to the bass-box and verify that noise is heard from the bass-box.
  - If no noise is heard, replace the bass-box.



ac9uuw02001400

**Fig. 31: Identifying Bass-Box Terminals**  
Courtesy of MAZDA MOTORS CORP.

## CONDENSER REMOVAL/INSTALLATION

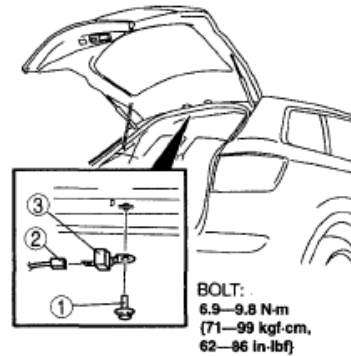
1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Trunk box (See [TRUNK BOX REMOVAL/INSTALLATION](#) .)
  2. Seat side box (See [SEAT SIDE BOX REMOVAL/INSTALLATION](#) .)
  3. Trunk end trim (See [TRUNK END TRIM REMOVAL/INSTALLATION](#) .)
  4. Third-row seat (See [THIRD-ROW SEAT REMOVAL/INSTALLATION](#) .)
  5. Third-row seat belt lower anchor installation bolt (See [THIRD-ROW SEAT BELT REMOVAL/INSTALLATION](#) .)
  6. Rear scuff plate inner (See [REAR SCUFF PLATE REMOVAL/INSTALLATION](#) .)
  7. Trunk side trim (See [TRUNK SIDE TRIM REMOVAL/INSTALLATION](#) .)
  8. Roof side trim (See [ROOF SIDE TRIM REMOVAL/INSTALLATION](#) .)
  9. Third-row seat belt upper anchor installation bolt (See [THIRD-ROW SEAT BELT REMOVAL/INSTALLATION](#) .)
  10. D-pillar trim (See [D-PILLAR TRIM REMOVAL/INSTALLATION](#) .)

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

3. Slightly bend back the headliner.
4. Remove in the order indicated in the table.

1	Bolt
2	Connector
3	Condenser



ac9uuw00000766

**Fig. 32: Identifying Condenser Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

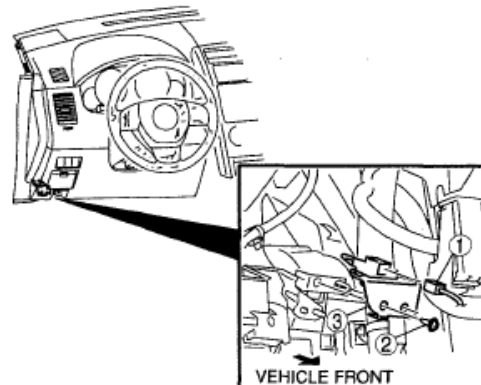
5. Install in the reverse order of removal.

## AUDIOPILOT MICROPHONE REMOVAL/INSTALLATION

**NOTE:** • "AudioPilot" is a registered trademark of Bose® Corporation.

1. Disconnect the negative battery cable.
2. Remove in the order indicated in the table.

1	Connector
2	Screw
3	AudioPilot microphone



ac9uuw00002226

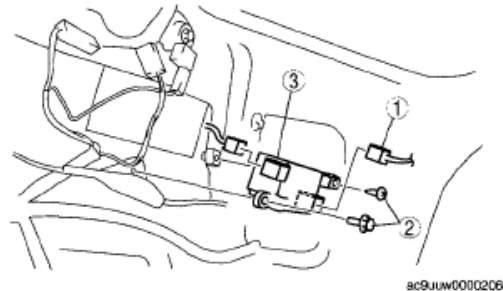
**Fig. 33: View Of Audiopilot Microphone**  
Courtesy of MAZDA MOTORS CORP.

3. Install in the reverse order of removal.

## NOISE FILTER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the liftgate upper trim. (See LIFTGATE UPPER TRIM REMOVAL/INSTALLATION .)
3. Remove the liftgate side trim. (See LIFTGATE SIDE TRIM REMOVAL/INSTALLATION .)
4. Remove the liftgate lower trim. (See LIFTGATE LOWER TRIM REMOVAL/INSTALLATION .)
5. Remove in the order indicated in the table.

1	Connector
2	Bolt and screw
3	Noise filter



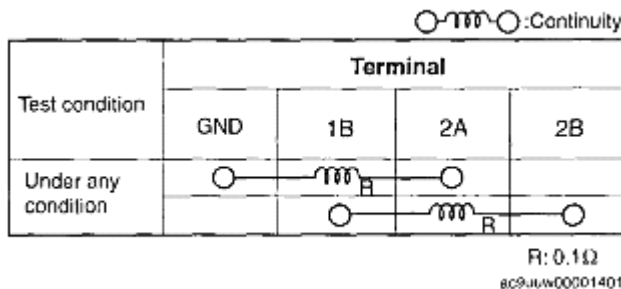
ac9uuw000c2060

**Fig. 34: Identifying Noise Filter Remove/Install Components**  
Courtesy of MAZDA MOTORS CORP.

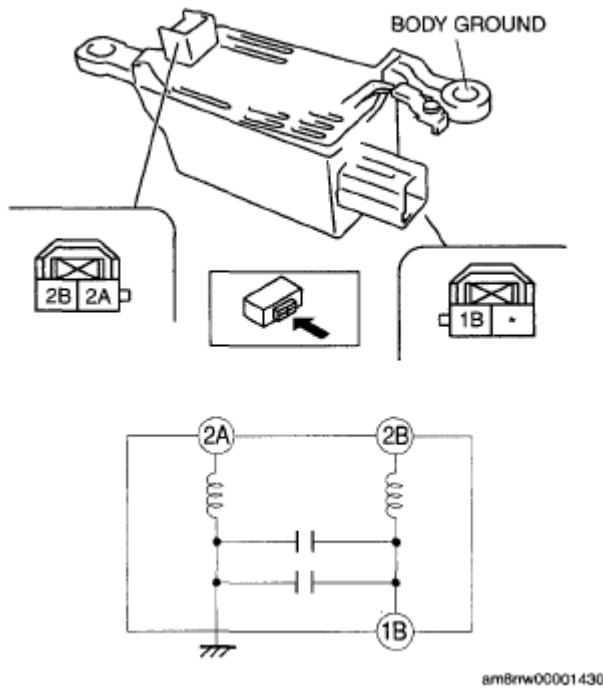
6. Install in the reverse order of removal.

## NOISE FILTER INSPECTION

1. Verify the resistance and continuity between the noise filter terminals.
  - If the resistance is not as indicated in the table, replace the noise filter.



**Fig. 35: Identifying Noise Filter Terminals Continuity Chart**  
Courtesy of MAZDA MOTORS CORP.

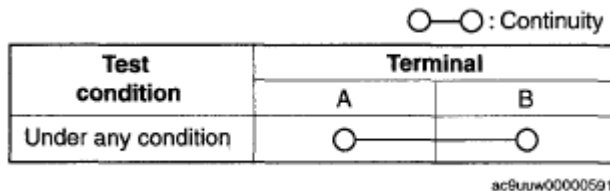


**Fig. 36: Identifying Noise Filter Terminals**  
 Courtesy of MAZDA MOTORS CORP.

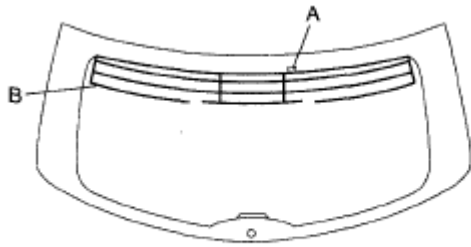
## GLASS ANTENNA INSPECTION

### AM/FM

1. Inspect the glass antenna for damage visually.
2. Inspect for continuity between the glass antenna terminals using an ohmmeter.
  - If not as specified, replace the glass antenna. (See **FILAMENT REPAIR** .)



**Fig. 37: Glass Antenna Terminals Continuity Chart**  
 Courtesy of MAZDA MOTORS CORP.



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**Fig. 38: Identifying Glass Antenna Terminals**  
Courtesy of MAZDA MOTORS CORP.

## ANTENNA FEEDER LOCATION

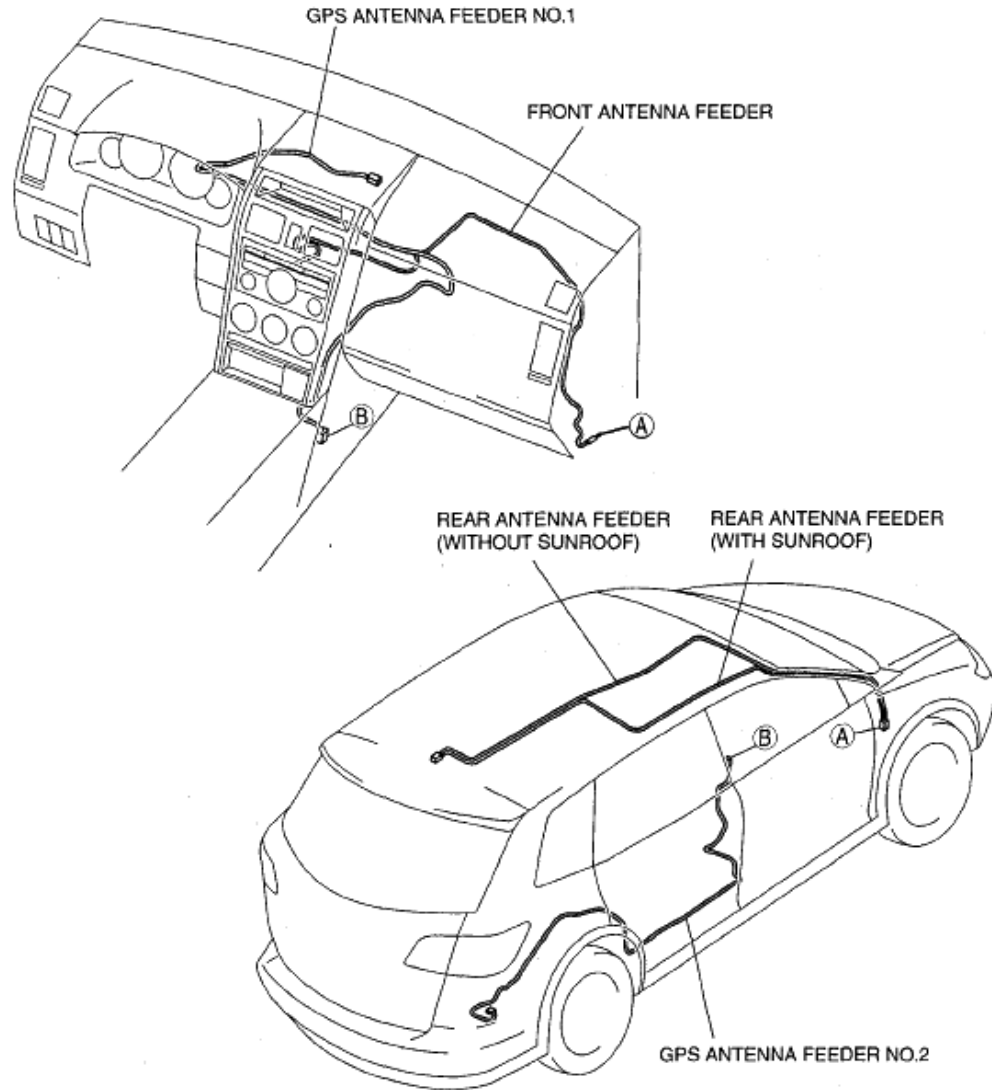
**NOTE:**

- GPS antenna feeder No.1 is integrated in the instrument panel wiring harness.
- GPS antenna feeder No.2 is integrated in the rear wiring harness.



# 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9



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**Fig. 39: Identifying Antenna Feeder Location**  
 Courtesy of MAZDA MOTORS CORP.

## FRONT ANTENNA FEEDER INSPECTION

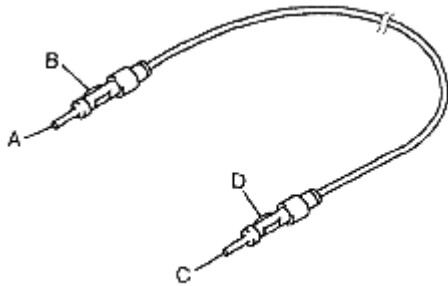
1. Verify that the continuity is as indicated in the table.
  - If not as indicated in the table, replace the front antenna feeder.

○—○:Continuity

Test condition	A	B	C	D
Under any condition	○	○	○	○
	○—○		○—○	

am9rwd0001062

**Fig. 40: Front Antenna Feeder Terminals Continuity Chart**  
 Courtesy of MAZDA MOTORS CORP.



ac9uuw00000592

**Fig. 41: Identifying Front Antenna Feeder Terminals**  
 Courtesy of MAZDA MOTORS CORP.

## REAR ANTENNA FEEDER INSPECTION

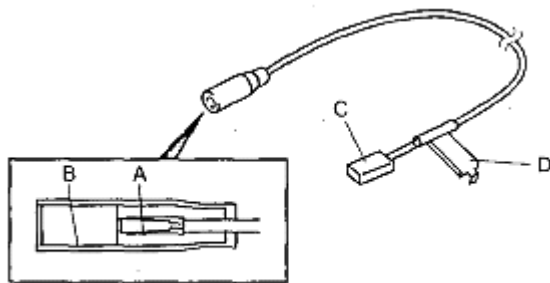
1. Verify that the continuity is as indicated in the table.
  - If not as indicated in the table, replace the rear antenna feeder.

○—○:Continuity

Test condition	A	B	C	D
Under any condition	○		○	
		○		○

am8rww00001082

**Fig. 42: Rear Antenna Feeder Terminals Continuity Chart**  
 Courtesy of MAZDA MOTORS CORP.



ac9uuw00000605

**Fig. 43: Identifying Rear Antenna Feeder Terminals**  
 Courtesy of MAZDA MOTORS CORP.

## GPS ANTENNA FEEDER INSPECTION

1. Verify that the continuity is as indicated in the table.

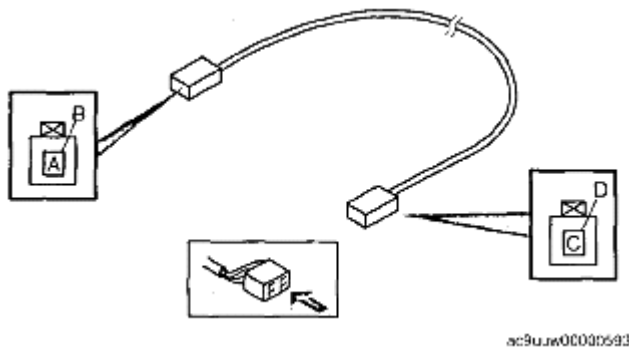
- If not as indicated in the table, replace the GPS antenna feeder.

○—○:Continuity

Test condition	A	B	C	D
Under any condition	○—○	○—○	○—○	
		○—○	○—○	○—○

am9rwd0001082

**Fig. 44: GPS Antenna Feeder Terminals Continuity Chart**  
Courtesy of MAZDA MOTORS CORP.

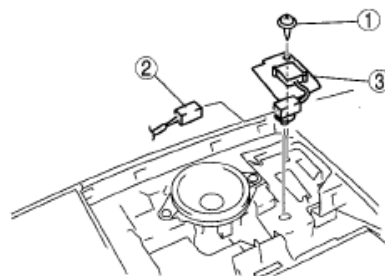


**Fig. 45: Identifying GPS Antenna Feeder Terminals**  
Courtesy of MAZDA MOTORS CORP.

## GPS ANTENNA REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Front console box mat (See **FRONT CONSOLE BOX MAT REMOVAL/INSTALLATION** .)
  2. Indicator panel (See **INDICATOR PANEL REMOVAL/INSTALLATION** .)
  3. Decoration panel (See **DECORATION PANEL REMOVAL/INSTALLATION** .)
  4. Front console box (See **FRONT CONSOLE BOX REMOVAL/INSTALLATION** .)
  5. Center panel (See **CENTER PANEL REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Screw
2	Connector
3	GPS antenna



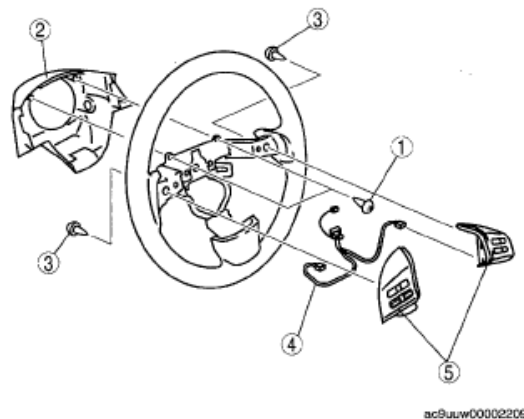
**Fig. 46: Identifying GPS Antenna Components**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

## AUDIO CONTROL SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the driver-side air bag module. (See **DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION** .)
3. Remove the steering wheel. (See **STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in the table.

1	Screw A
2	Cover
3	Screw B
4	Connector and wiring harness
5	Audio control switch



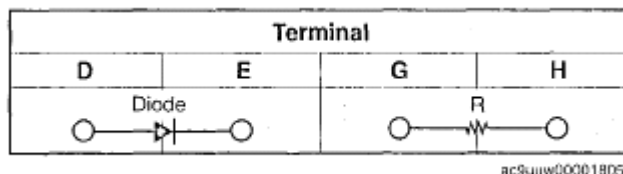
**Fig. 47: Identifying Audio Control Switch Components**  
 Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

## AUDIO CONTROL SWITCH INSPECTION

### WITHOUT HF/TEL SYSTEM

1. Verify the resistance and continuity between the audio control switch terminals.
  - If the resistance and continuity are not as indicated in the tables, replace the audio control switch.



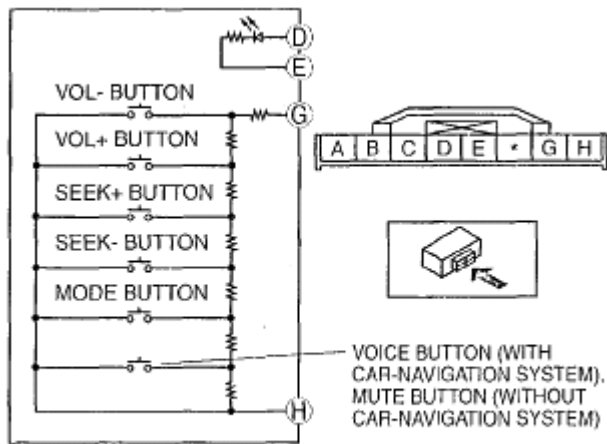
**Fig. 48: Audio Control Switch Terminals Continuity Chart (Without HF/TEL System)**

Courtesy of MAZDA MOTORS CORP.

R : Resistance. See the table.

**RESISTANCE SPECIFICATION**

Switch position	Resistance (ohm)
VOL- button ON	51-56
VOL+ button ON	140-154
SEEK+ button ON	286-315
SEEK- button ON	534-589
MODE button ON	985-1,088
VOICE/MUTE button ON	1,935-2,138
OFF	4,795-5,299



ac9uuw0000626

**Fig. 49: Identifying Audio Control Switch Terminals (Without HF/TEL System)**

Courtesy of MAZDA MOTORS CORP.

**WITH HF/TEL SYSTEM**

1. Verify the resistance and continuity between the audio control switch terminals.
  - If the resistance and continuity are not as indicated in the tables, replace the audio control switch.

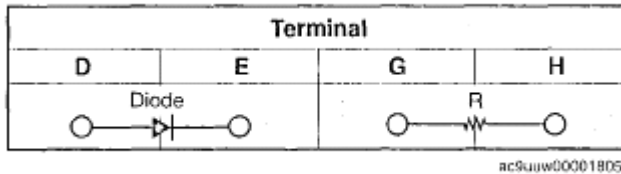
**HF/TEL SWITCH**

HF/TEL SWITCH ○—○: Continuity

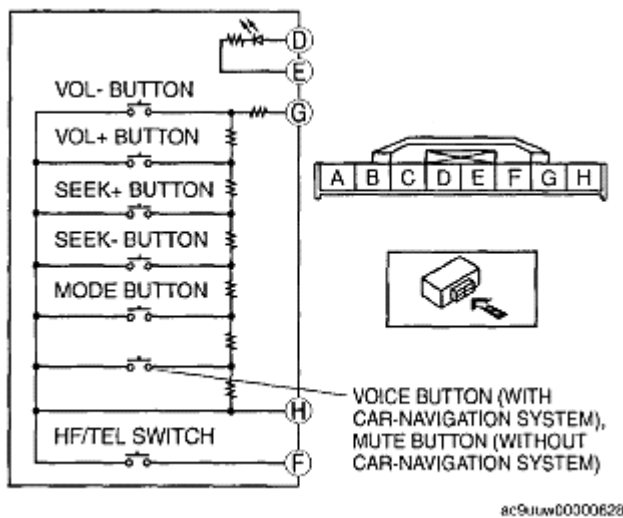
SWITCH POSITION	Terminal	
	F	H
ON	○—○	
OFF		

ac9uuw00001806

**Fig. 50: Audio Control Switch Terminals Continuity Chart (With HF/TEL System)**  
 Courtesy of MAZDA MOTORS CORP.



**Fig. 51: Audio Control Switch Terminals Continuity Chart (With HF/TEL System)**  
 Courtesy of MAZDA MOTORS CORP.



**Fig. 52: Identifying Audio Control Switch Terminals (With HF/TEL System)**  
 Courtesy of MAZDA MOTORS CORP.

R : Resistance. See the table.

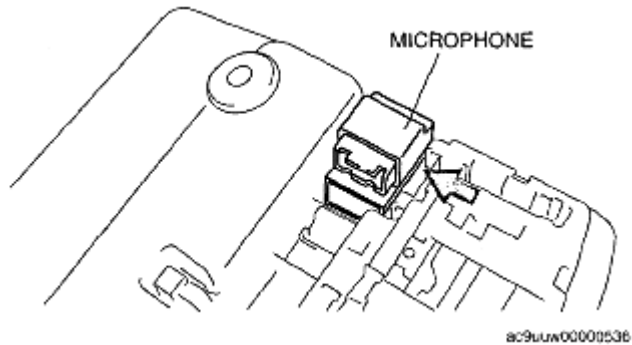
**RESISTANCE SPECIFICATION**

Switch position	Resistance (ohm)
VOL- button ON	51-56
VOL+ button ON	140-154
SEEK+ button ON	286-315
SEEK- button ON	534-589
MODE button ON	985-1,088
VOICE/MUTE button ON	1,935-2,138
OFF	4,795-5,299

**MICROPHONE REMOVAL/INSTALLATION**

1. Disconnect the negative battery cable.

2. Remove the map light. (See **FRONT MAP LIGHT REMOVAL/INSTALLATION** .)
3. Press the microphone in the direction indicated by the arrow and remove the microphone.
4. Install in the reverse order of removal.

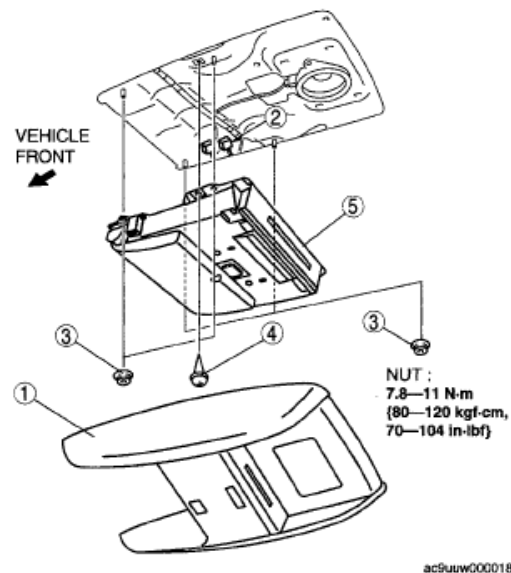


**Fig. 53: View Of Microphone**  
Courtesy of MAZDA MOTORS CORP.

## RES UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove in the order indicated in the table.

1	RES unit cover (See 09-20-22 RES Unit Cover Removal Note.)
2	Connector
3	Nut
4	Screw
5	RES unit

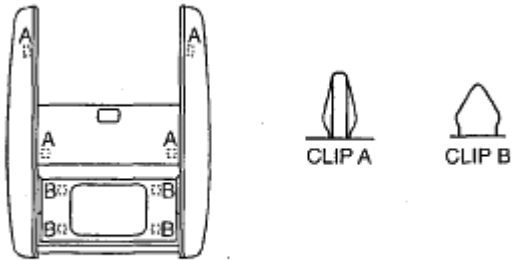


**Fig. 54: Identifying RES Unit Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

3. Install in the reverse order of removal.

## RES UNIT COVER REMOVAL NOTE

1. Pull the cover outward and detach clips A and B.

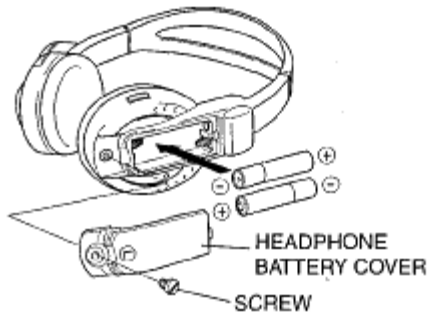


ac9uuw00000543

**Fig. 55: Identifying RES Unit Cover Clips**  
Courtesy of MAZDA MOTORS CORP.

## HEADPHONE BATTERY REPLACEMENT

1. Remove the screw, then remove the headphone battery cover.
2. Remove the old batteries.
3. Insert 2 AAA-size batteries with the positive pole (+) and negative pole (-) as shown in the figure.
4. Install the headphone battery cover and screw.



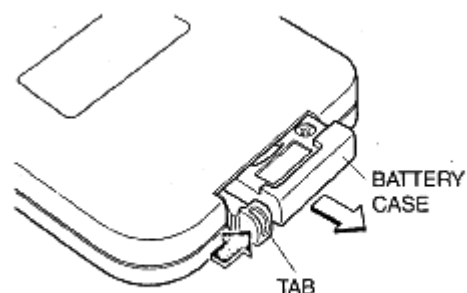
ac9uuw00001198

**Fig. 56: Inserting AAA-Size Batteries**  
Courtesy of MAZDA MOTORS CORP.

## REMOTE CONTROLLER BATTERY REPLACEMENT

1. Push the tab, and pull the battery case out.
2. Remove the old battery.





ac9uuw00001171

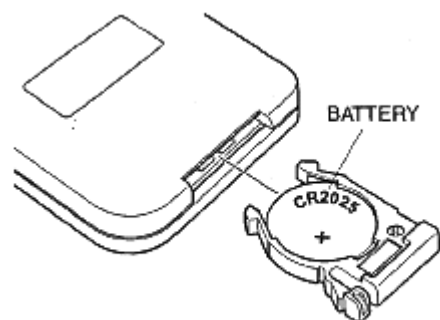
**Fig. 57: View Of Battery Case**  
Courtesy of MAZDA MOTORS CORP.

3. Insert a new battery (CR2023) with the positive pole (+) facing up.

**Used battery**

- **Lithium battery CR2023**

4. Slide the battery case back into the remote controller until the tab clicks into place.



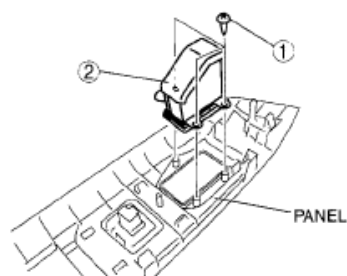
ac9uuw00001172

**Fig. 58: Identifying Battery**  
Courtesy of MAZDA MOTORS CORP.

## AUXILIARY TERMINAL UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove auxiliary terminal unit panel. (See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

1	Screw
2	Auxiliary terminal unit



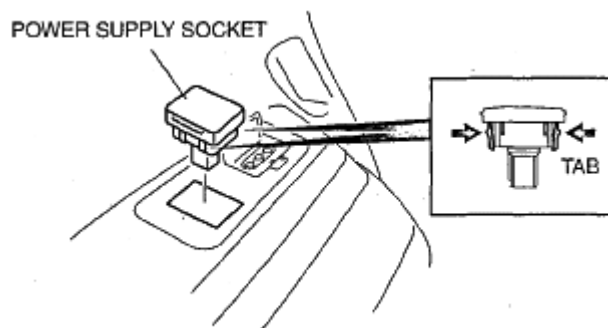
ac9uuw0000695

**Fig. 59: Identifying Auxiliary Terminal Unit Screws**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

## POWER SUPPLY SOCKET REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove auxiliary terminal unit panel. (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
3. Press the tabs, pull the power supply socket outward, and then remove it.
4. Install in the reverse order of removal.



ac9uuw00002062

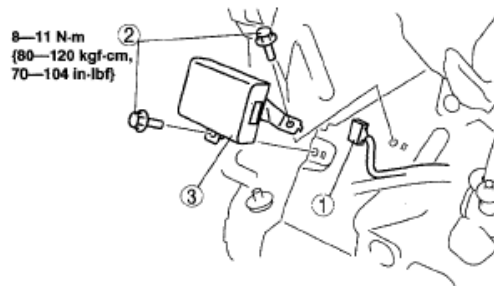
**Fig. 60: View Of Power Supply Socket**  
 Courtesy of MAZDA MOTORS CORP.

## INVERTER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Trunk box (See **TRUNK BOX REMOVAL/INSTALLATION** .)
  2. Seat side box (See **SEAT SIDE BOX REMOVAL/INSTALLATION** .)
  3. Trunk end trim (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
  4. Third-row seat (See **THIRD-ROW SEAT REMOVAL/INSTALLATION** .)
  5. Rear scuff plate inner (LH) (See **REAR SCUFF PLATE REMOVAL/INSTALLATION** .)

6. Third-row seat belt lower anchor installation bolt (LH) (See **THIRD-RROW SEAT BELT REMOVAL/INSTALLATION** .)
  7. Trunk side trim (Driver side) (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

1	Connector
2	Bolt
3	Inverter



ac9uuw00002210

**Fig. 61: Identifying Inverter Components & Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

## INVERTER INSPECTION

1. Measure the voltage at each terminal.

**WARNING:**

- The AC voltage is extremely high voltage. Be careful when measuring the voltage.

- If the voltage is not as specified in the Terminal Voltage Table, inspect the parts under "inspection item(s)" and related wiring harnesses.
2. Disconnect the negative battery cable.
  3. If the system does not work properly even though the inspection items or related wiring harnesses do not have any malfunction, replace the inverter.

### INVERTER UNIT HARNESS-SIDE CONNECTOR

M	*		E	*	A
N	*	*	*	*	B



**Fig. 62: Identifying Inverter Unit Connector Terminals**  
 Courtesy of MAZDA MOTORS CORP.

**TERMINAL VOLTAGE TABLE**

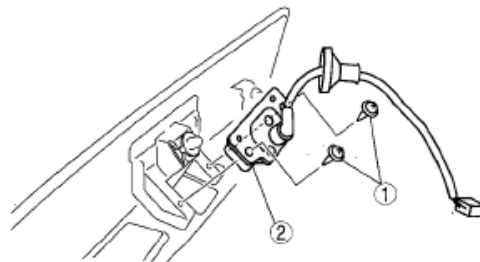
**VOLTAGE SPECIFICATION**

Terminal	Signal name	Connected to	Measured condition	Voltage (V)/ Continuity	Inspection item (s)
A, B	AC power supply output	Power supply socket (AC 115 V)	Ignition switch is at ACC or ON position	AC 103-5-126.5	<ul style="list-style-type: none"> <li>Power supply socket (AC 115V)</li> <li>Related wiring harnesses</li> </ul>
			Ignition switch is at LOCK position	1.0 or less	
E	ACC	MIRROR 7.5 A fuse	Ignition switch is at ACC or ON position	B+	<ul style="list-style-type: none"> <li>MIRROR 7.5 A fuse</li> <li>Related wiring harnesses</li> </ul>
			Ignition switch is at LOCK position	1.0 or less	
M	Power supply	AC PWR 15 A fuse	Under any condition	B+	<ul style="list-style-type: none"> <li>AC PWR 15 A fuse</li> <li>Related wiring harnesses</li> </ul>
N	GND	Body ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> <li>Related wiring harnesses</li> </ul>

**REAR MOUNT CAMERA REMOVAL/INSTALLATION**

1. Remove the liftgate upper trim. (See LIFTGATE UPPER TRIM REMOVAL/INSTALLATION .)
2. Remove the liftgate side trim. (See LIFTGATE SIDE TRIM REMOVAL/INSTALLATION .)
3. Remove the liftgate lower trim. (See LIFTGATE LOWER TRIM REMOVAL/INSTALLATION .)
4. Remove the rear finisher. (See REAR FINISHER REMOVAL/INSTALLATION .)
5. Remove in the order indicated in the table.

1	Screw
2	Rear mount camera



ac9uuw0000416

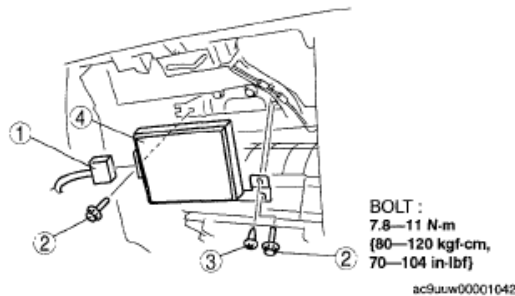
**Fig. 63: Identifying Rear Mount Camera Screws**  
 Courtesy of MAZDA MOTORS CORP.

6. Install in the reverse order of removal.

## HANDS-FREE TELEPHONE (HF/TEL) UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the dashboard under cover (Passenger side). (See **DASHBOARD UNDER COVER REMOVAL/INSTALLATION** .)
3. Remove the glove compartment. (See **GLOVE COMPARTMENT REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in the table.

1	Connector
2	Bolt
3	Screw
4	HF/TEL unit



**Fig. 64: Identifying Hands-Free Telephone (HF/TEL) Unit Components & Torque Specifications**  
Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

## ACCESSORY SOCKET REMOVAL/INSTALLATION

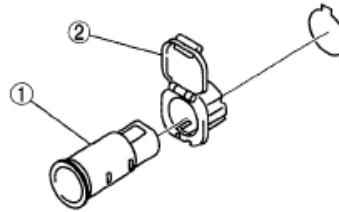
### FRONT

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Decoration panel (See **DECORATION PANEL REMOVAL/INSTALLATION** .)
  2. Front console box mat (See **FRONT CONSOLE BOX MAT REMOVAL/INSTALLATION** .)
  3. Indicator panel (See **SELECTOR LEVER COMPONENT REMOVAL/INSTALLATION** .)
  4. Front console box (See **FRONT CONSOLE BOX REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.

## 2008 Mazda CX-9 Grand Touring

2008 BODY & ACCESSORIES Entertainment - Mazda CX-9

1	Accessory socket (See 09-20-27 Accessory Socket Removal Note.)
2	Cap (See 09-20-27 Cap Removal Note.)



8CXUJW00001014

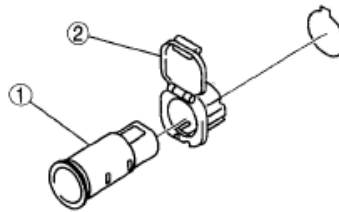
**Fig. 65: Identifying Accessory Socket & Cap (Front)**  
Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

### CENTER

1. Disconnect the negative battery cable.
2. Remove the console panel. (See **CONSOLE PANEL REMOVAL/INSTALLATION** .)
3. Remove the console. (See **CONSOLE REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in the table.

1	Accessory socket (See 09-20-27 Accessory Socket Removal Note.)
2	Cap (See 09-20-27 Cap Removal Note.)



8CXUJW00001014

**Fig. 66: Identifying Accessory Socket & Cap (Center)**  
Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

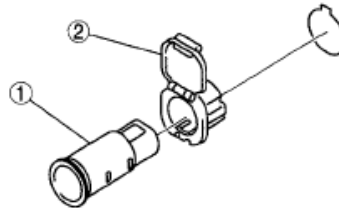
### REAR

1. Disconnect the negative battery cable.
2. Remove the following parts:
  1. Trunk box (See **TRUNK BOX REMOVAL/INSTALLATION** .)
  2. Seat side box (See **SEAT SIDE BOX REMOVAL/INSTALLATION** .)
  3. Trunk end trim (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
  4. Third-row seat (See **THIRD-ROW SEAT REMOVAL/INSTALLATION** .)
  5. Rear scuff plate inner (RH) (See **REAR SCUFF PLATE REMOVAL/INSTALLATION** .)
  6. Third-row seat belt lower anchor installation bolt (RH) (See **THIRD-ROW SEAT BELT**

**REMOVAL/INSTALLATION .)**

7. Trunk side trim (Passenger side) (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION .)**
3. Remove the console panel. (See **CONSOLE PANEL REMOVAL/INSTALLATION .)**
4. Remove the console. (See **CONSOLE REMOVAL/INSTALLATION .)**
5. Remove in the order indicated in the table.

1	Accessory socket (See 09-20-27 Accessory Socket Removal Note.)
2	Cap (See 09-20-27 Cap Removal Note.)



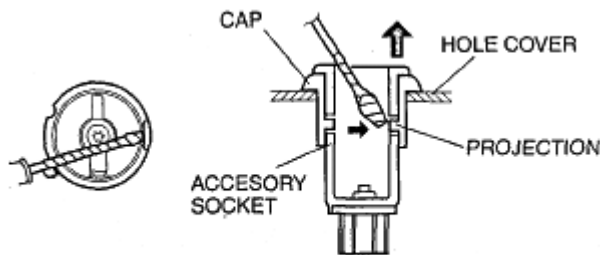
sc9uuw00001014

**Fig. 67: Identifying Accessory Socket & Cap (Rear)**  
 Courtesy of MAZDA MOTORS CORP.

6. Install in the reverse order of removal.

**ACCESSORY SOCKET REMOVAL NOTE**

1. While pressing a tape-wrapped flathead screwdriver against the cap projection, pull the accessory socket outward.

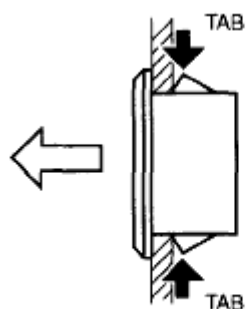


ac9uuw00002211

**Fig. 68: View Of Accessory Socket**  
 Courtesy of MAZDA MOTORS CORP.

**CAP REMOVAL NOTE**

1. While pressing the tabs, pull the cap outwards.



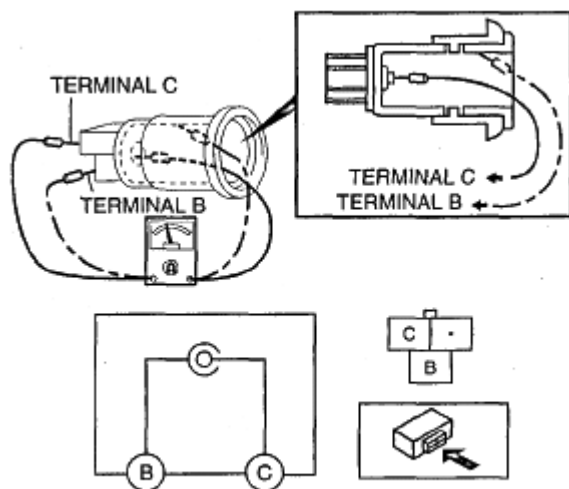
acxluw0001018

**Fig. 69: View Of Cap**

Courtesy of MAZDA MOTORS CORP.

## ACCESSORY SOCKET INSPECTION

1. Connect a tester as shown in the figure and verify that there is continuity.
  - If the continuity cannot be verified, replace the accessory socket.



ac9luw0000214

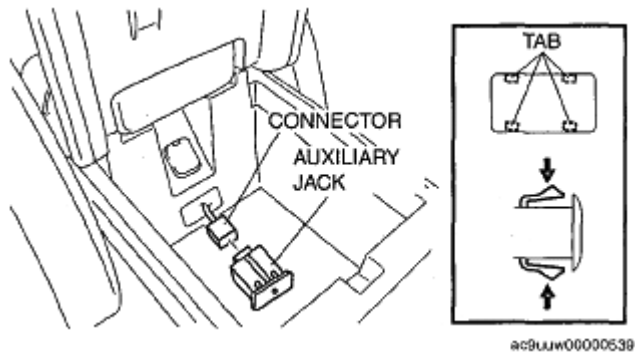
**Fig. 70: Identifying Accessory Socket Terminals**

Courtesy of MAZDA MOTORS CORP.

## AUXILIARY JACK REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the console cover. (See CONSOLE COVER REMOVAL/INSTALLATION .)
3. Disconnect the auxiliary jack connector.
4. Squeeze the tabs of auxiliary jack and pull it outward to remove it.
5. Install in the reverse order of removal.





**Fig. 71: View Of Auxiliary Jack**  
Courtesy of MAZDA MOTORS CORP.