

**2005 Mazda MX-5 Miata**

2005 ACCESSORIES & EQUIPMENT Entertainment - MX-5 Miata

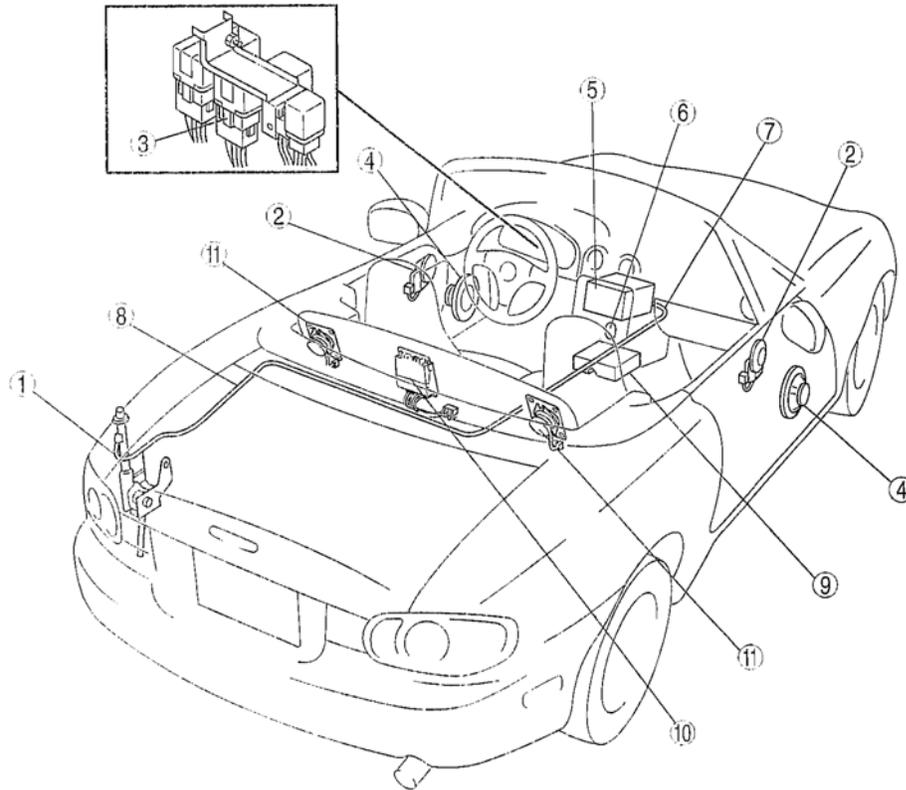
**2005 ACCESSORIES & EQUIPMENT**

**Entertainment - MX-5 Miata**

**ENTERTAINMENT LOCATION INDEX**

## 2005 Mazda MX-5 Miata

### 2005 ACCESSORIES & EQUIPMENT Entertainment - MX-5 Miata



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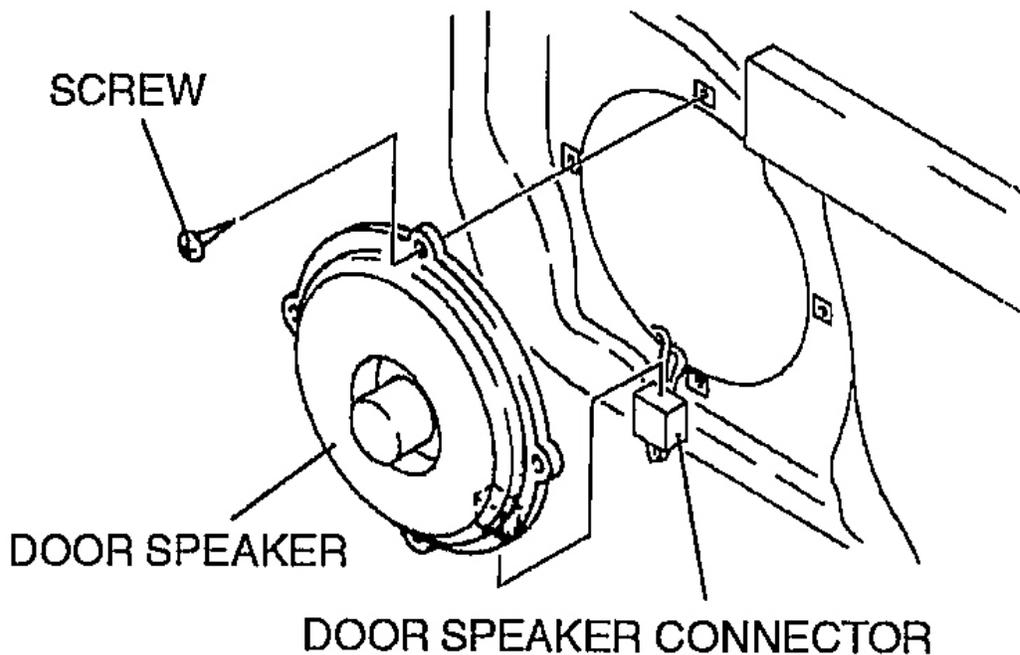
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**Fig. 1: Identifying Entertainment Components**  
Courtesy of MAZDA MOTORS CORP.

## DOOR SPEAKER REMOVAL/INSTALLATION

- CAUTION:**
- When removing or installing a door speaker, touching the radio cone paper could cause poor sound quality. When removing or installing a door speaker, hold the speaker's bracket and handle with care.

1. Disconnect the negative battery cable.
2. Remove the door trim. (See **DOOR TRIM REMOVAL/INSTALLATION** .)
3. Remove the screws.
4. Disconnect the door speaker connector and remove the door speaker.



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**Fig. 2: Removing Door Speaker**  
Courtesy of MAZDA MOTORS CORP.

5. Position the door speaker so that the terminals face downward and install in the reverse order of removal.

## DOOR SPEAKER INSPECTION

1. Remove the door speaker. (See **DOOR SPEAKER REMOVAL/INSTALLATION**.)
2. Inspect for resistance between the door speaker terminals using an ohmmeter.
  - If not as specified, replace the door speaker.

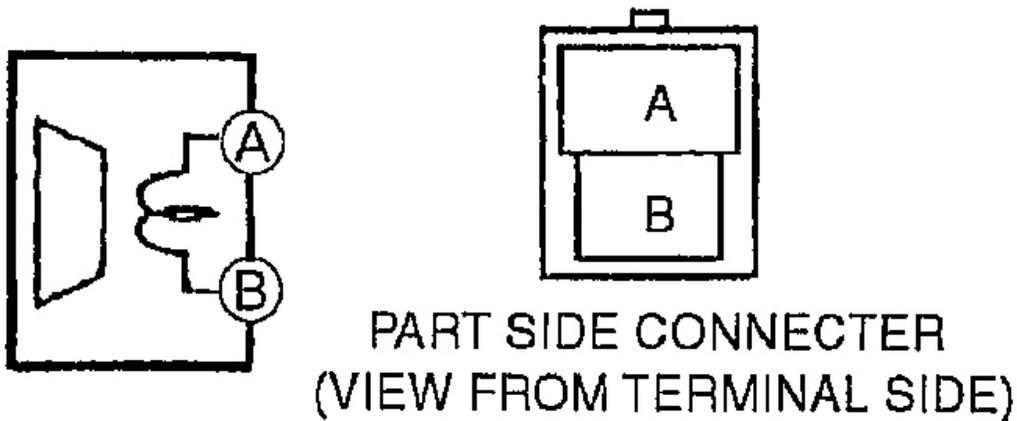
○—○ : Resistance

Door speaker	Terminal		
	A	B	
Standard type	○—○	○—○	R <sub>1</sub>
BOSE type	○—○	○—○	R <sub>2</sub>

R<sub>1</sub>: 4 Ω    R<sub>2</sub>: 0.5 Ω

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**Fig. 3: Door Speaker Connector Terminal Continuity Chart**  
 Courtesy of MAZDA MOTORS CORP.



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**Fig. 4: Inspecting For Resistance Between Door Speaker Terminals Using An Ohmmeter**  
 Courtesy of MAZDA MOTORS CORP.

## AEROBOARD SPEAKER REMOVAL/INSTALLATION

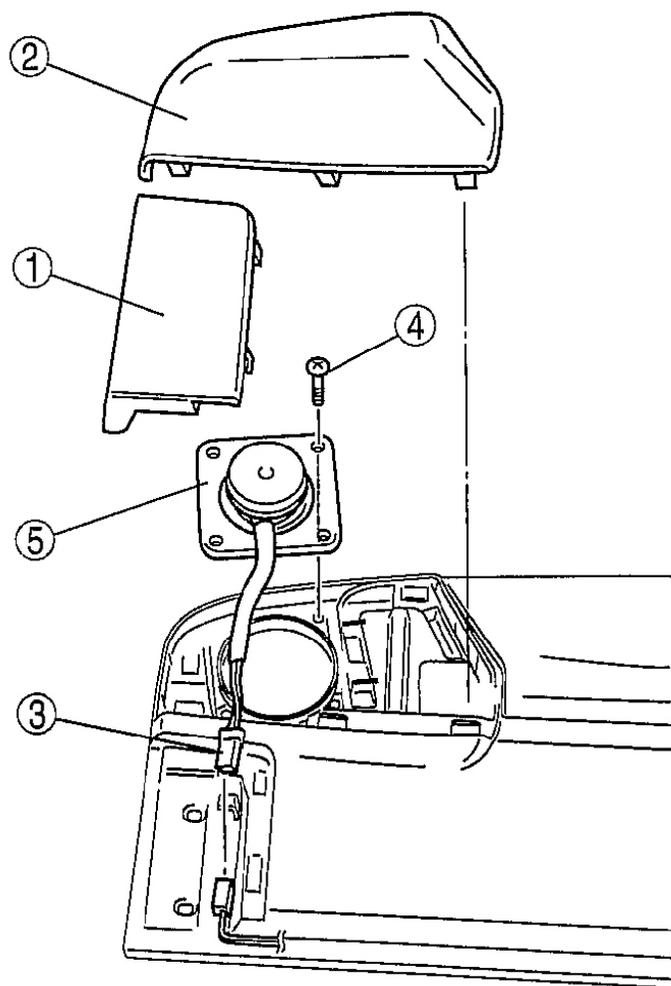
**CAUTION:** • When removing or installing an aeroboard speaker, touching the

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**radio cone paper could cause poor sound quality. When removing or installing an aeroboard speaker, hold the speaker bracket and handle with care.**

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



1	Cover (See Cover Removal Note.)
2	Speaker cover (See Speaker Cover Removal Note.)
3	Aeroboard speaker connector
4	Screw
5	Aeroboard speaker

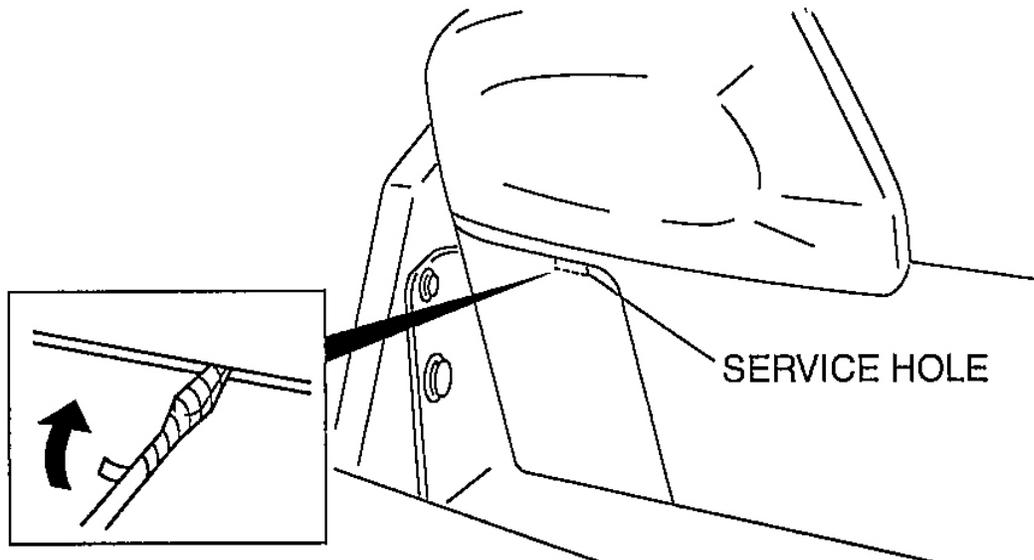
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**Fig. 5: Removing Aeroboard Speaker**  
 Courtesy of MAZDA MOTORS CORP.

3. Install in the reverse order of removal.

### COVER REMOVAL NOTE

1. Insert a tape-wrapped flathead screwdriver into the service hole.
2. Pry with the screwdriver in the direction shown by the arrow to remove the cover.

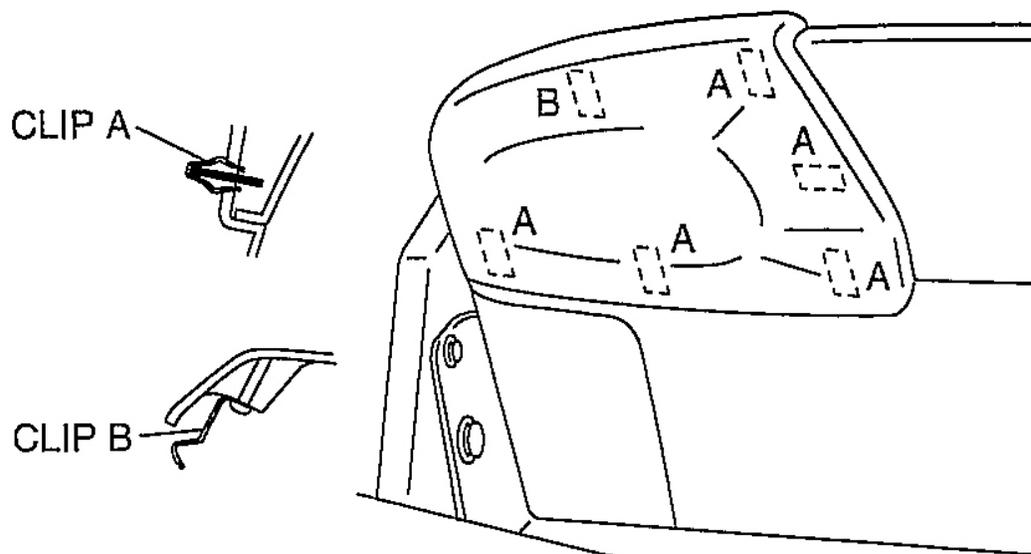


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**Fig. 6: Inserting A Tape-Wrapped Flathead Screwdriver Into Service Hole**  
Courtesy of MAZDA MOTORS CORP.

### SPEAKER COVER REMOVAL NOTE

1. Pull the speaker cover outward, detach clips A and B from the aeroboard, and then remove the speaker cover.



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**Fig. 7: Detaching Clips A And B From Aeroboard**  
Courtesy of MAZDA MOTORS CORP.

## AEROBOARD SPEAKER INSPECTION

1. Remove the aeroboard speaker. (See **AEROBOARD SPEAKER REMOVAL/INSTALLATION.**)
2. Inspect for resistance between the aeroboard speaker terminals using an ohmmeter.
  - If not as specified, replace the aeroboard speaker.

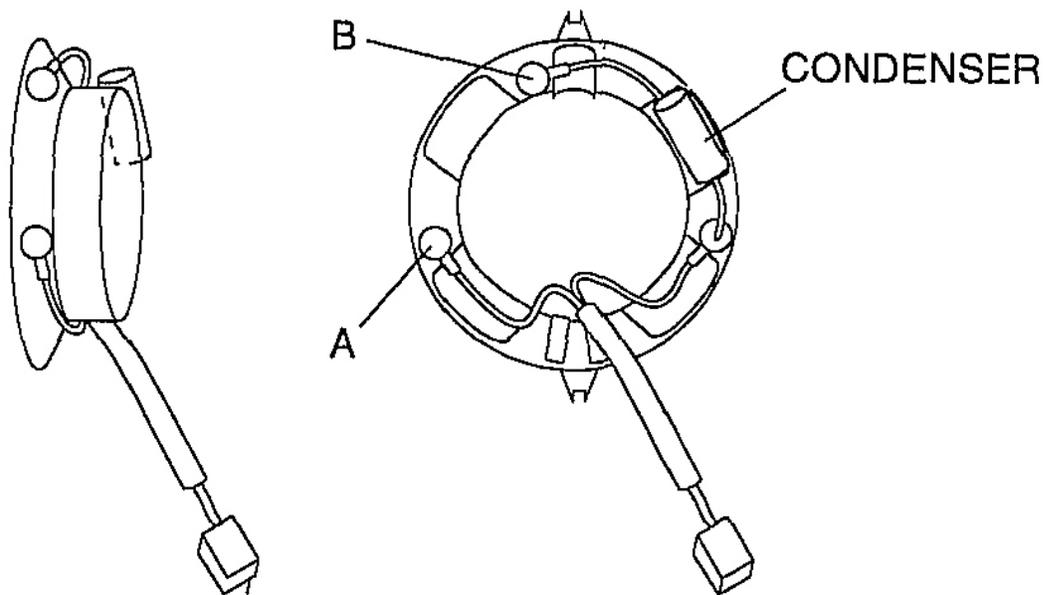
○—W—○ : Resistance

Test condition	Terminal	
	A	B
Under any condition	○—W—	—W—○

R : 4 Ω

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**Fig. 8: Aeroboard Speaker Terminal Connector Continuity**  
 Courtesy of MAZDA MOTORS CORP.

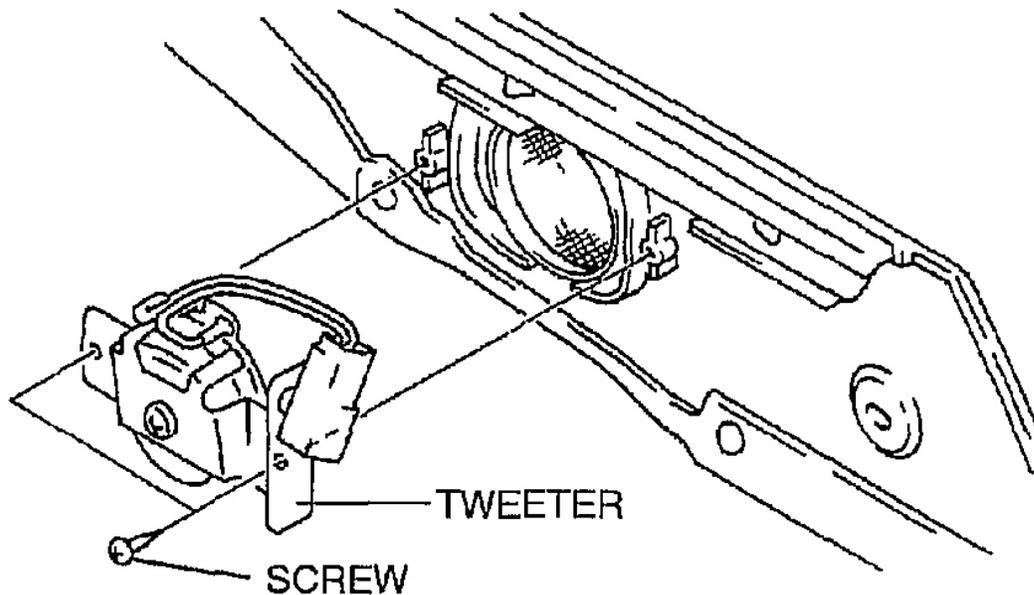


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**Fig. 9: Inspecting For Resistance Between Aeroboard Speaker Terminals**  
 Courtesy of MAZDA MOTORS CORP.

- CAUTION:**
- When removing or installing a tweeter, touching the radio cone paper could cause poor sound quality. When removing or installing a tweeter speaker, hold the speaker's bracket and handle with care.

1. Disconnect the negative battery cable.
2. Remove the door trim. (See **DOOR TRIM REMOVAL/INSTALLATION** .)
3. Remove the screws, then remove the tweeter.



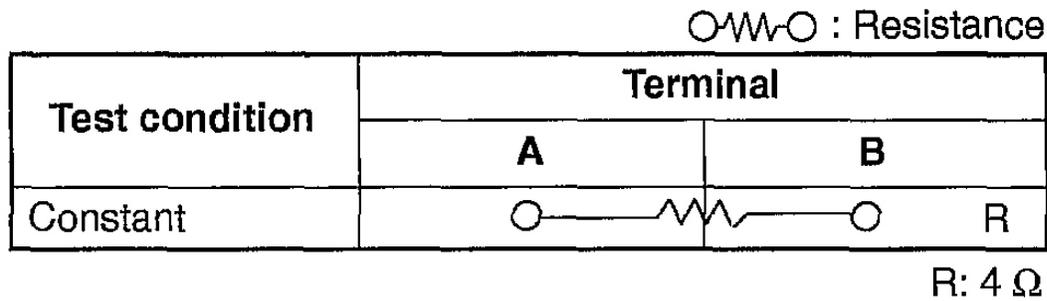
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**Fig. 10: Removing Tweeter**  
Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

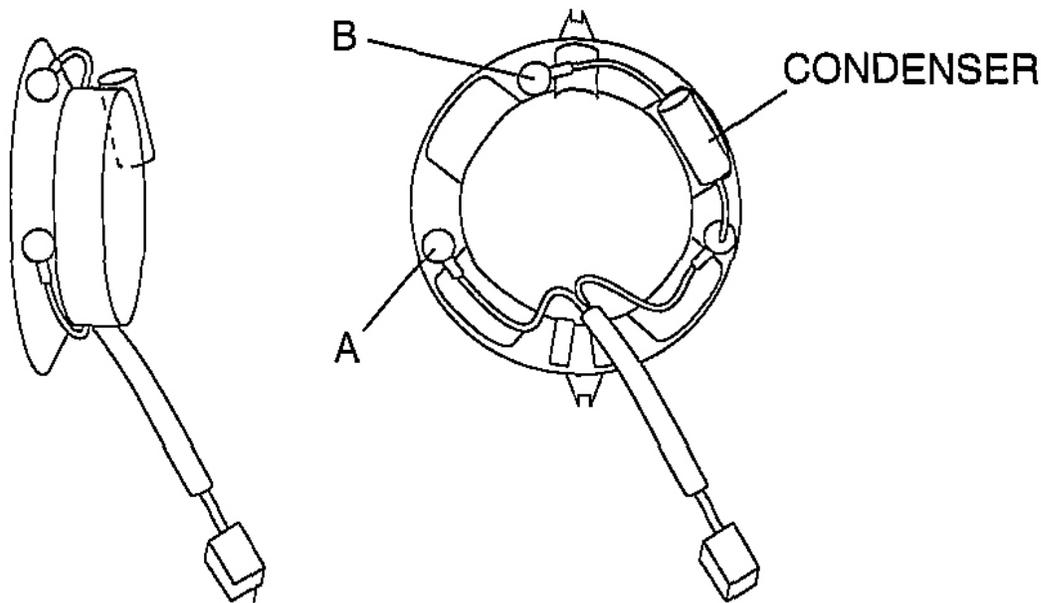
## TWEETER INSPECTION

1. Remove the tweeter speaker. (See **TWEETER REMOVAL/INSTALLATION**.)
2. Inspect for resistance between the tweeter speaker terminals using an ohmmeter.
  - If not as specified, replace the tweeter speaker.



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**Fig. 11: Tweeter Terminal Connector Continuity**  
 Courtesy of MAZDA MOTORS CORP.



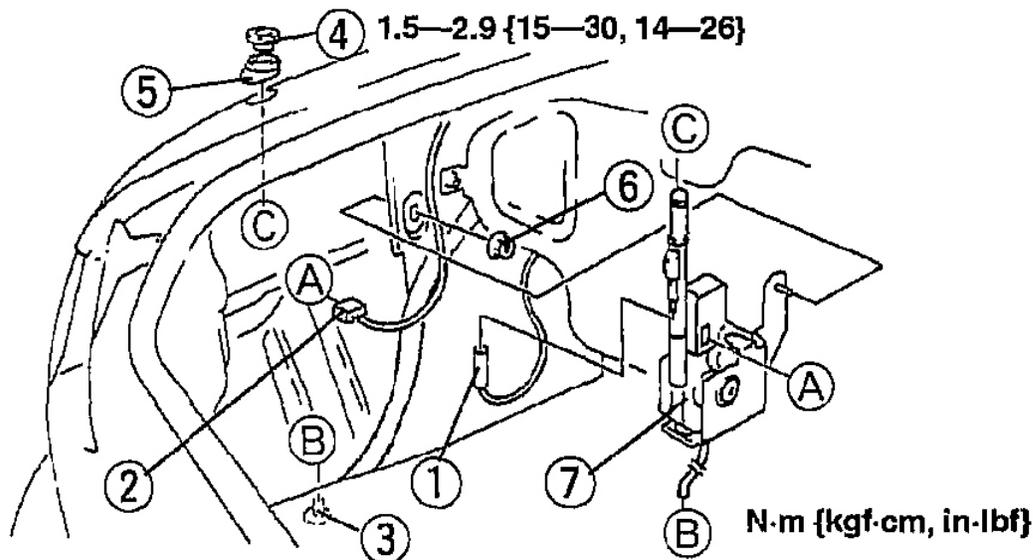
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**Fig. 12: Inspecting For Resistance Between Tweeter Speaker Terminals**  
 Courtesy of MAZDA MOTORS CORP.

## POWER ANTENNA REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.

2. Remove the trunk side trim (LH). (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .
3. Remove in the order indicated in the table.



1	Rear antenna feeder
2	Connector
3	Drain hose
4	Mounting nut (See Mounting Nut Removal Note)
5	Spacer
6	Nut
7	Power antenna

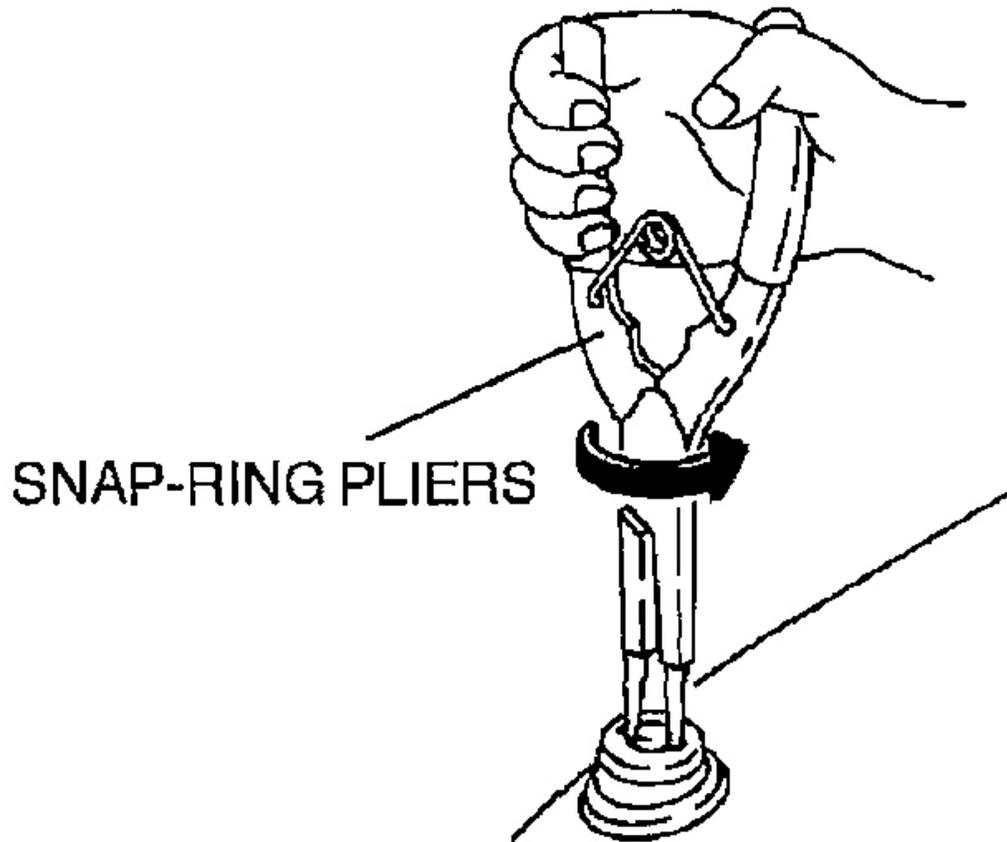
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**Fig. 13: Removing Power Antenna - With Torque Specifications**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

**MOUNTING NUT REMOVAL NOTE**

1. Use snap-ring pliers to remove the mounting nut.



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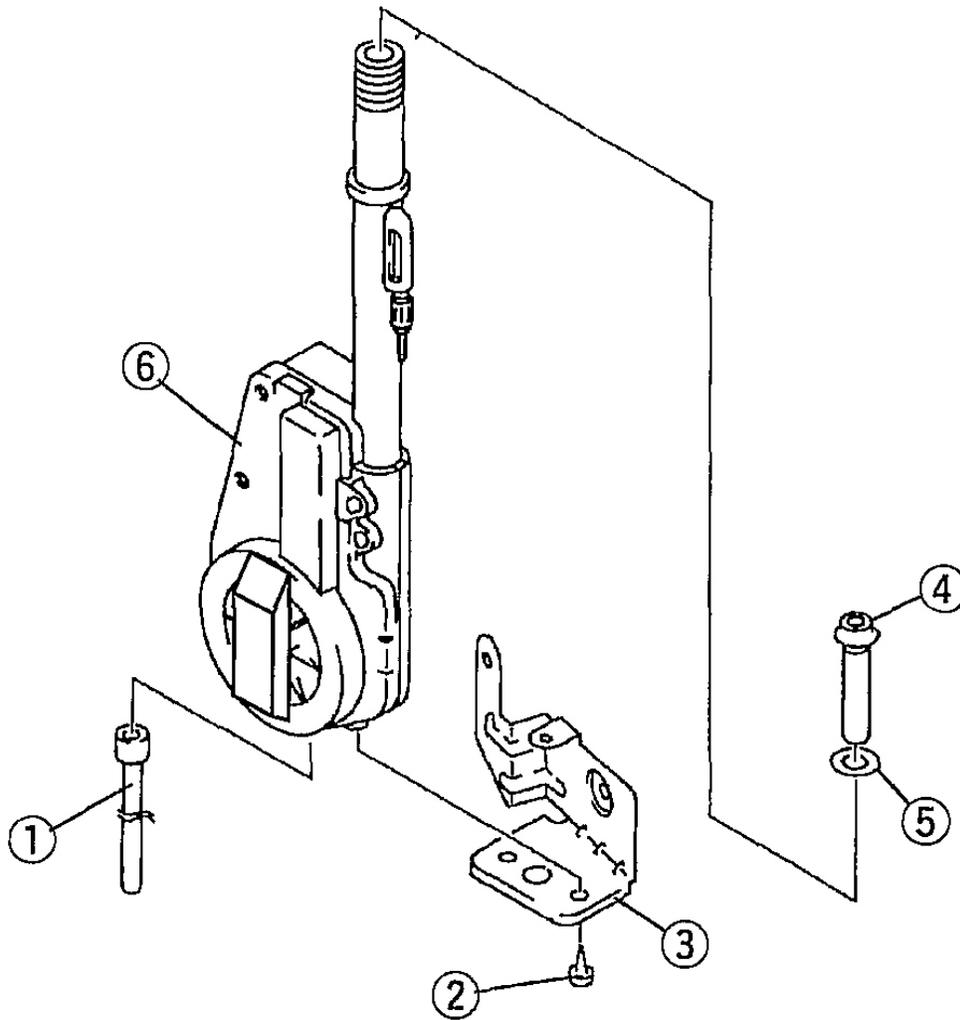
**Fig. 14: Removing Mounting Nut**  
Courtesy of MAZDA MOTORS CORP.

## POWER ANTENNA DISASSEMBLY/ASSEMBLY

1. Disassemble in the order indicated in the table.

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1	Drain hose
2	Screw
3	Bracket
4	Rod insulator
5	O-ring
6	Motor

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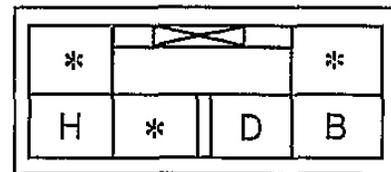
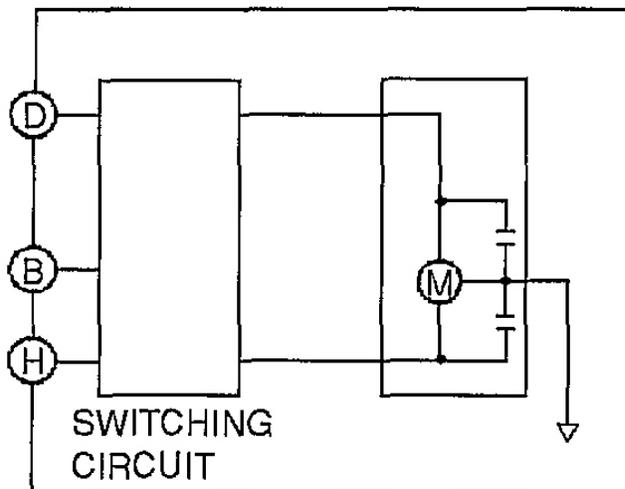
**Fig. 15: Disassembling Power Antenna**  
Courtesy of MAZDA MOTORS CORP.

2. Assemble in the reverse order of disassembly.

## POWER ANTENNA INSPECTION

1. Remove the trunk side trim (LH). (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
2. Disconnect the power antenna connector.
3. Connect ground to terminal H of the power antenna.
4. Connect B+ to the following terminals of the power antenna. Verify that the power antenna operated as indicated below.
  - If not as specified, replace the necessary part.

Terminal		Power antenna operation
B	D	
B+	-	Down
B+	B+	Up



HARNESS SIDE  
CONNECTOR  
(VIEW FROM  
TERMINAL SIDE)

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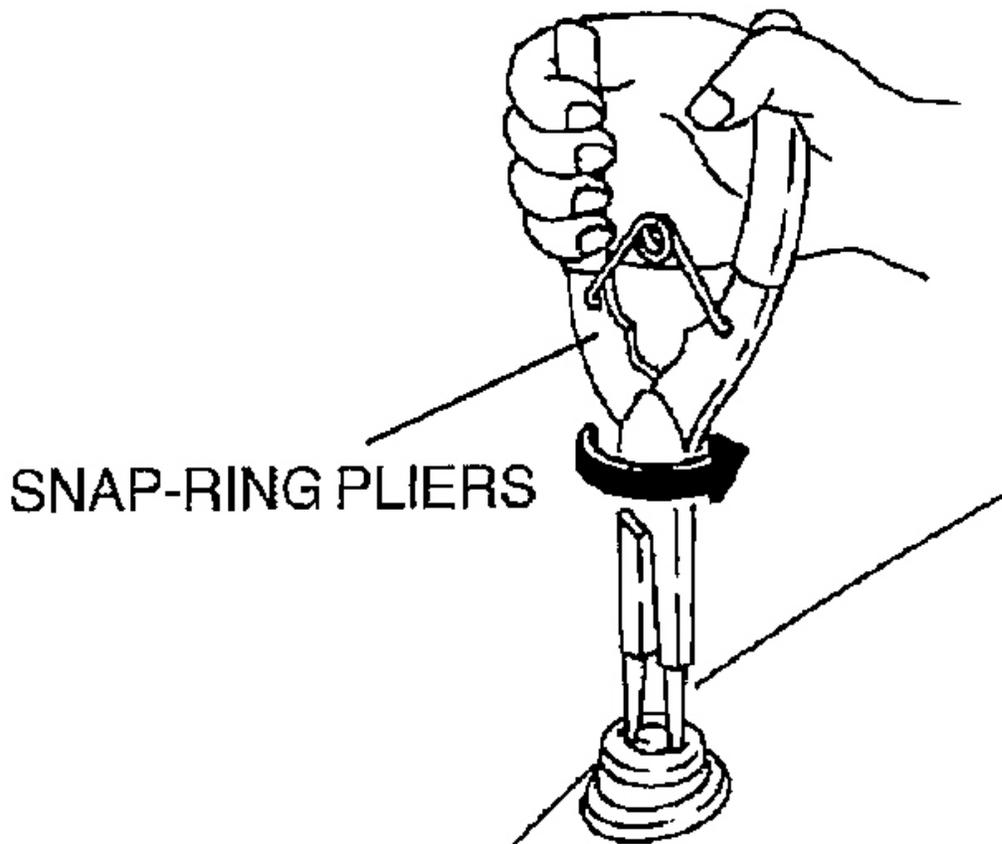
**Fig. 16: Inspecting Power Antenna Connector Terminals**  
Courtesy of MAZDA MOTORS CORP.

## ANTENNA MAST REMOVAL

**CAUTION:**

- Always remove the antenna mast with the power antenna installed in the vehicle. Removing the antenna mast from the removed power antenna may damage the power antenna or the antenna mast.

1. Use snap-ring pliers to remove the mounting nut.



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**Fig. 17: Removing Mounting Mast**  
Courtesy of MAZDA MOTORS CORP.

2. Turn the ignition switch to the ON position or the ACC position.
3. Audio power switch is the ON position.
4. Press AM/FM button and turn on the radio.
5. Pull out the antenna mast after it fully extends.

## ANTENNA MAST INSTALLATION

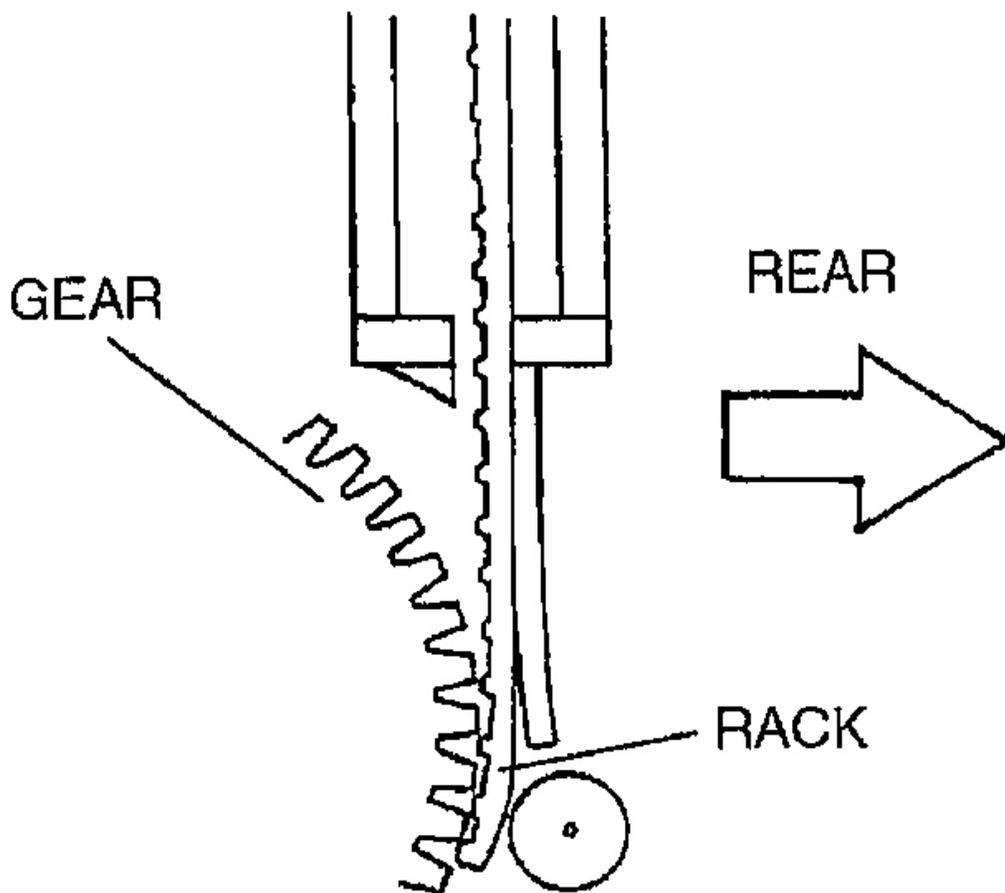
1. Turn the ignition switch to the ON position or the ACC position.

2. Straighten the warp of rack end.
3. Audio power switch is the ON position.
4. Press AM/FM button and turn on the radio.
5. Turn audio power switch off, then immediately insert the rack into the power antenna.
6. After the antenna mast is fully retracted, tighten the mounting nut to the specification.

**Tightening torque**

**1.5-2.9 N.m {15-30 kgf.cm, 14-26 in.lbf}**

7. Verify that the power antenna operates smoothly when the audio unit radio is on.



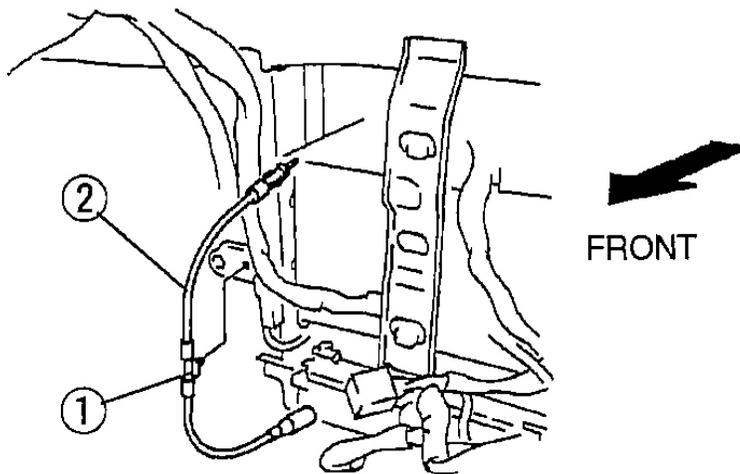
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**Fig. 18: Installing Antenna Mast**

Courtesy of MAZDA MOTORS CORP.

## FRONT ANTENNA FEEDER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the audio unit. (See **AUDIO UNIT INSTALLATION**.)
3. Remove the console. (See **CONSOLE REMOVAL/INSTALLATION**.)
4. Disconnect the connection between the front antenna feeder and the rear antenna feeder.
5. Remove in the order indicated in the table.



1	Clip
2	Front antenna feeder

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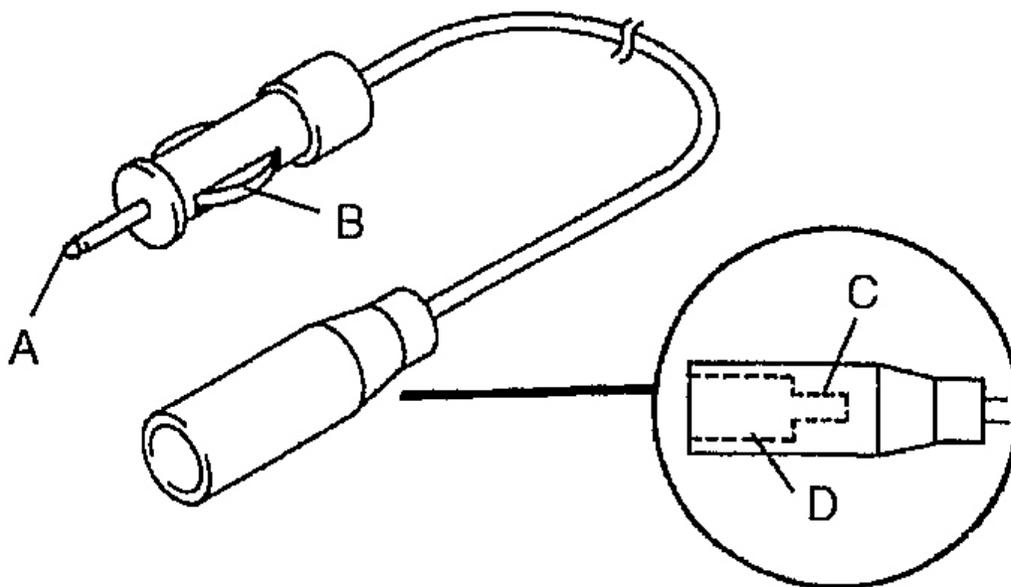
**Fig. 19: Removing Front Antenna Feeder**  
Courtesy of MAZDA MOTORS CORP.

6. Install in the reverse order of removal.

## FRONT ANTENNA FEEDER INSPECTION

1. Disconnect the negative battery cable.
2. Remove the audio unit. (See **AUDIO UNIT REMOVAL**.)
3. Remove the console. (See **CONSOLE REMOVAL/INSTALLATION**.)
4. Disconnect the connection between front antenna feeder and the rear antenna feeder.

5. Verify that there is no continuity between front antenna feeder terminals A and B using an ohmmeter.



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**Fig. 20: Identifying Front Antenna Feeder**  
Courtesy of MAZDA MOTORS CORP.

6. Inspect for continuity between the front antenna feeder terminals using an ohmmeter.
- If not as specified, replace the front antenna feeder.

○—○ : Continuity

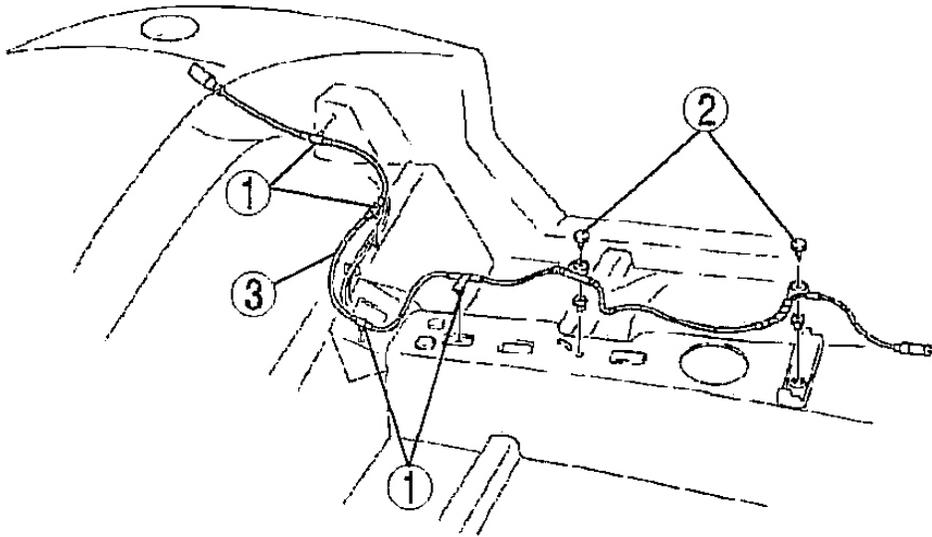
Step	Terminal			
	A	B	C	D
1	○—		—○	
2		○—		—○

G03639013

**Fig. 21: Front Antenna Terminal Connector Continuity**  
 Courtesy of MAZDA MOTORS CORP.

## REAR ANTENNA FEEDER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk side trim (LH). (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
3. Disconnect the connection between the rear antenna feeder and the power antenna. (With manual antenna)
4. Remove the rear package trim. (See **REAR PACKAGE TRIM REMOVAL/INSTALLATION** .)
5. Turn over the floor covering from the right side. (See **FLOOR COVERING REMOVAL/INSTALLATION** .)
6. Disconnect the connection between the front-antenna feeder and the rear antenna feeder.
7. Remove in the order indicated in the table.



1	Clip
2	Fastener
3	Rear antenna feeder

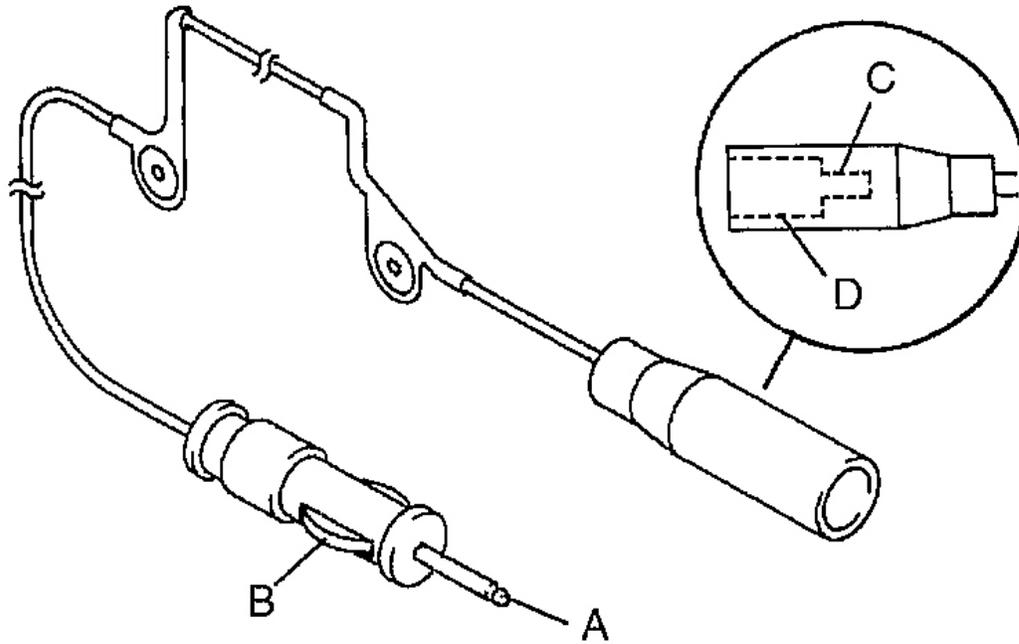
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**Fig. 22: Removing Rear Antenna Feeder**  
 Courtesy of MAZDA MOTORS CORP.

8. Install in the reverse order of removal.

## REAR ANTENNA FEEDER INSPECTION

1. Remove the console. (See **CONSOLE REMOVAL/INSTALLATION** .)
2. Disconnect the connection between the front antenna feeder and the rear antenna feeder.
3. Remove the trunk side trim (LH). (See **TRUNK SIDE TRIM REMOVAL/INSTALLATION** .)
4. Disconnect the connection between the rear antenna feeder and the power antenna. (With manual antenna)
5. Verify that there is no continuity between rear antenna feeder terminals A and B using an ohmmeter.



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**Fig. 23: Identifying Rear Antenna Feeder**  
 Courtesy of MAZDA MOTORS CORP.

6. Inspect for continuity between the rear antenna feeder terminals using an ohmmeter.
  - If not as specified, replace the rear antenna feeder.

○—○ : Continuity

Step	Terminal			
	A	B	C	D
1	○—○	○—○	○—○	
2		○—○	○—○	○—○

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**Fig. 24: Rear Antenna Feeder Terminal Connector Continuity**

Courtesy of MAZDA MOTORS CORP.

## ANTI-THEFT SYSTEM

### ALARM CONDITIONS

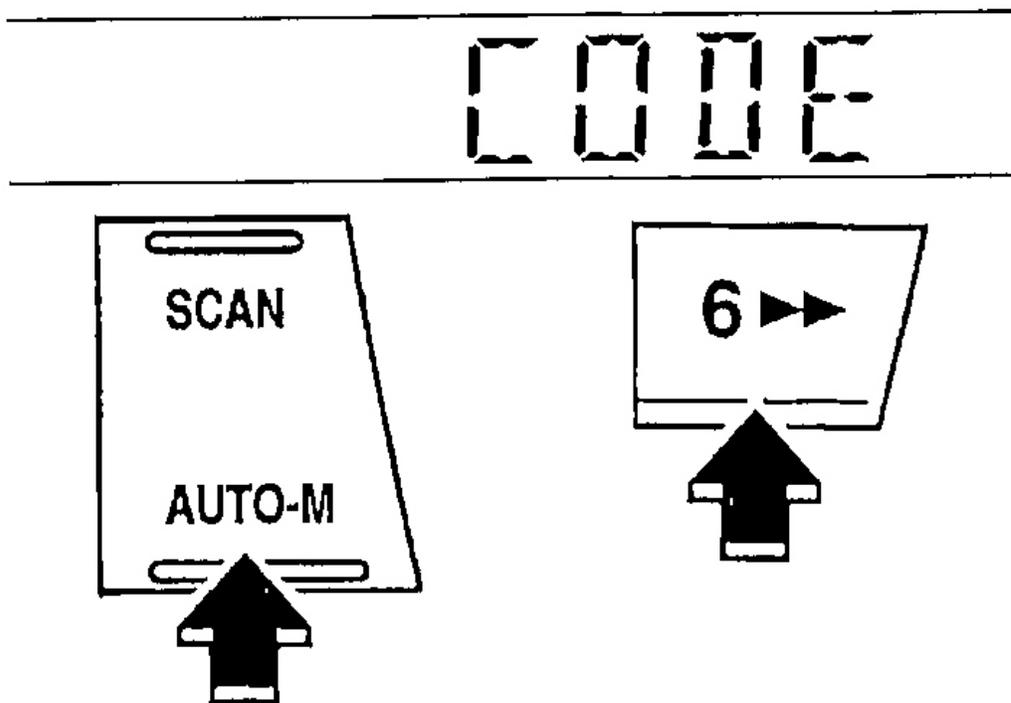
- If the anti-theft system protection has been activated, any one of the following conditions will trigger the system:
  - Disconnected battery cable
  - Discharged battery
  - Disconnected audio unit connectors
- If the system is triggered, the audio unit will then be inoperative when it is reconnected to a power source, and "code" will flash on the display until the preselected code number is input. If the anti-theft system is triggered, follow the procedures in "Canceling Anti-theft Operation" to reset the unit.

Operation	Reference
Input code number to activate anti-theft system	Setting the Code Number
Delete previous code number and set new number	Canceling the Code Number
Resume audio unit operation after anti-theft system is triggered	Canceling Anti-theft Operation

### SETTING THE CODE NUMBER

Complete each step (Steps 1-3) **within 10 seconds** or the setting procedure will be canceled.

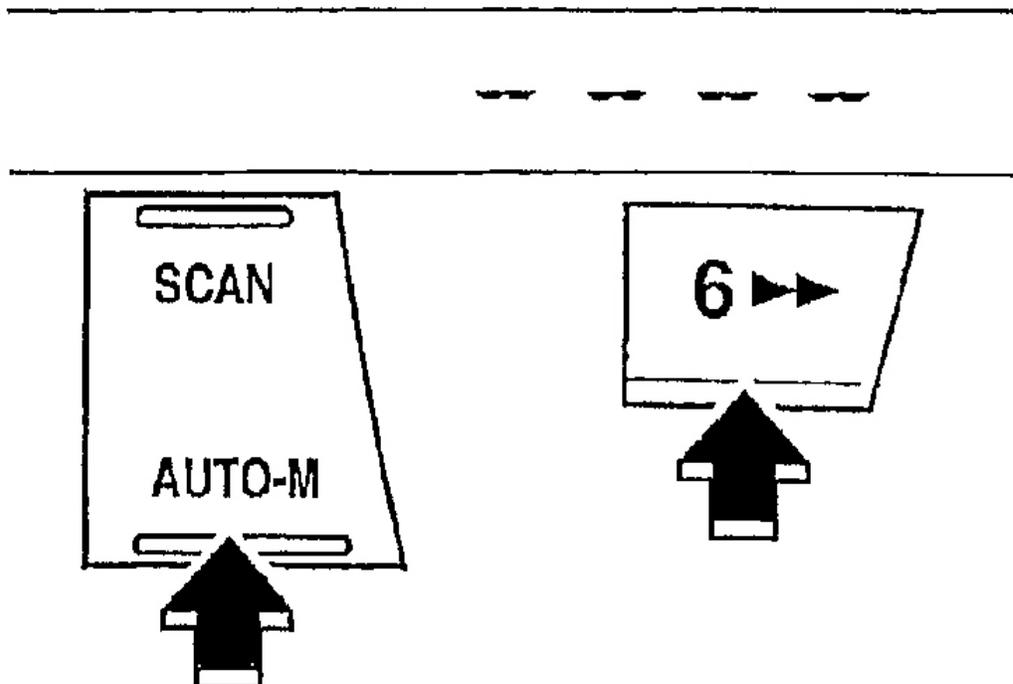
1. Turn the ignition switch to ACC position and then turn off the audio unit.
2. First press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds** until "CODE" appears on the display.



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**Fig. 25: Pressing AUTO-M Button and Channel Button 6 Until "CODE" Appears On Display**  
Courtesy of MAZDA MOTORS CORP.

3. Press the AUTO-M button again, then simultaneously press channel button 6 until dashes appear on the display.



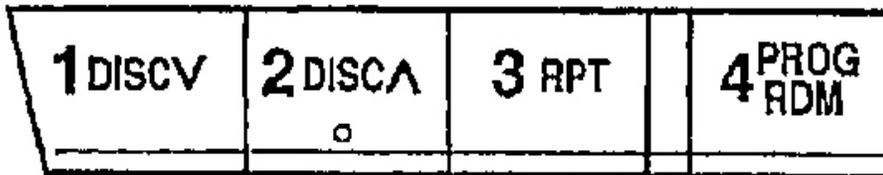
G03639019

**Fig. 26: Pressing AUTO-M Button and Channel Button 6 Until Dashes Appear On Display**  
Courtesy of MAZDA MOTORS CORP.

4. Select a personal code number and record it before inputting it. If the number is input and then forgotten, it cannot be canceled, and if the unit is disconnected again, the audio unit will be inoperative.
5. Use channel buttons 1-4 to input the selected code number. Press button 1 for the first digit, 2 for the second, 3 for the third, and 4 for the last digit. Input the number **within 10 seconds**. If the display is deleted, repeat the procedure from Step 1.

**NOTE:**

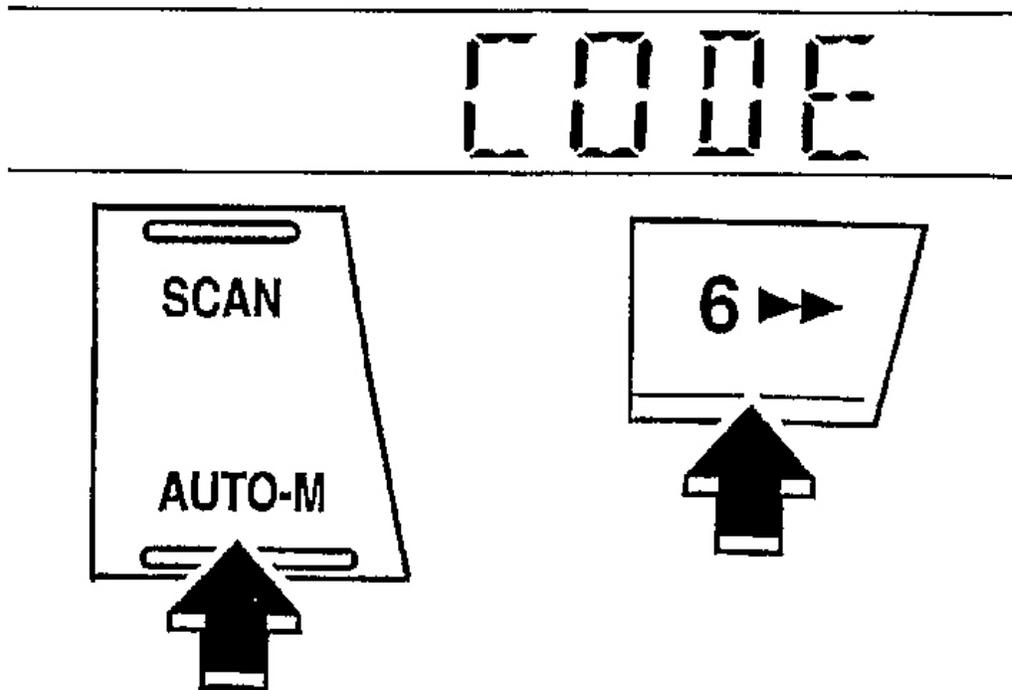
- Perform Step 6 within 10 seconds after Step 5.



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**Fig. 27: Inputting Code Number**  
Courtesy of MAZDA MOTORS CORP.

6. With the code number displayed, press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds**. "CODE" will be displayed for **approximately 5 seconds**. After it disappears, the code number is set.
7. If "Err" (error) appears on the display, repeat the procedure from Step 1. If input error is repeated three times, turn the ignition switch to LOCK position and repeat the procedure from Step 1.



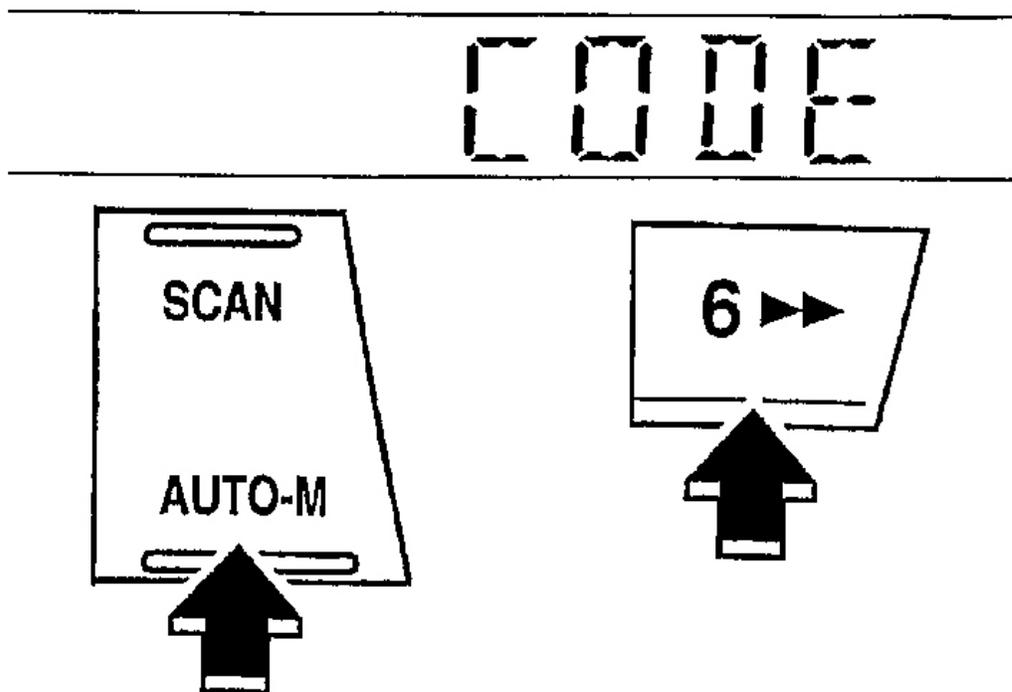
G03639021

**Fig. 28: Pressing AUTO-M Button and Channel Button 6 Until "CODE" Appears On Display**  
Courtesy of MAZDA MOTORS CORP.

### CANCELING THE CODE NUMBER

Complete each step (Steps 1-3) **within 10 seconds** or the canceling procedure will be canceled.

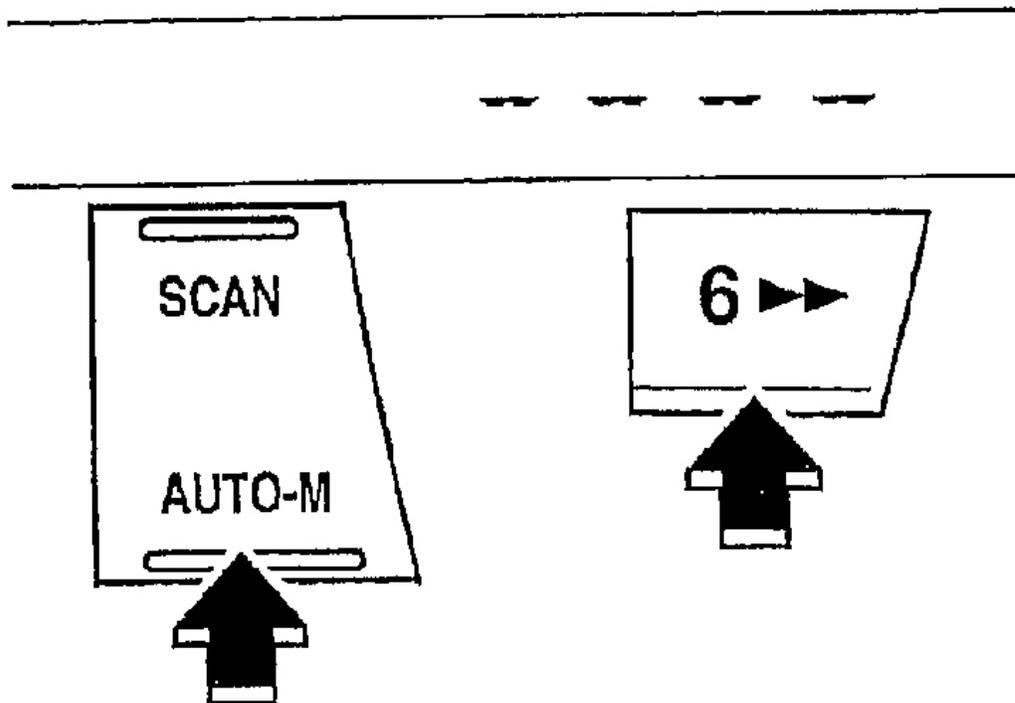
1. Turn the ignition switch to ACC position and then turn off the audio unit.
2. First press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds** until "CODE" appears on the display.



G03639022

**Fig. 29: Pressing AUTO-M Button and Channel Button 6 Until "CODE" Appears On Display**  
Courtesy of MAZDA MOTORS CORP.

3. Press the AUTO-M button again, then simultaneously press channel button 6 until dashes appear on the display.



G03639023

**Fig. 30: Pressing AUTO-M Button and Channel Button 6 Until Dashes Appear On Display**  
Courtesy of MAZDA MOTORS CORP.

4. Use channel buttons 1-4 to input the current code number. Press button 1 for the first digit, 2 for the second, 3 for the third, and 4 for the last digit. Input the number **within 10 seconds**. If the display is deleted, repeat the procedure from Step 1.

**NOTE:**

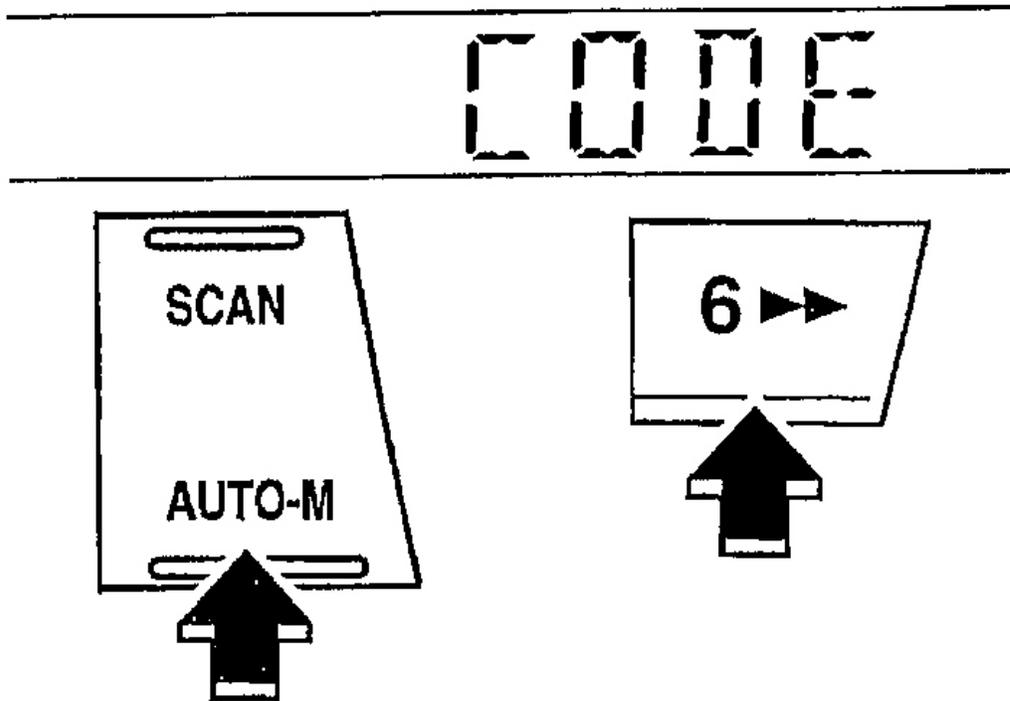
- Perform Step 5 within 10 seconds after Step 4.

A rectangular digital display showing the code number 2547 in a seven-segment font.

G03639024

**Fig. 31: Inputting Code Number**  
Courtesy of MAZDA MOTORS CORP.

5. With the code number displayed, press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds**. "CODE" will be displayed for **approximately 5 seconds**. After it disappears, the code number is canceled.
6. If "Err" (error) appears on the display, repeat the procedure from Step 4.



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**Fig. 32: Pressing AUTO-M Button and Channel Button 6 Until "CODE" Appears On Display**  
Courtesy of MAZDA MOTORS CORP.

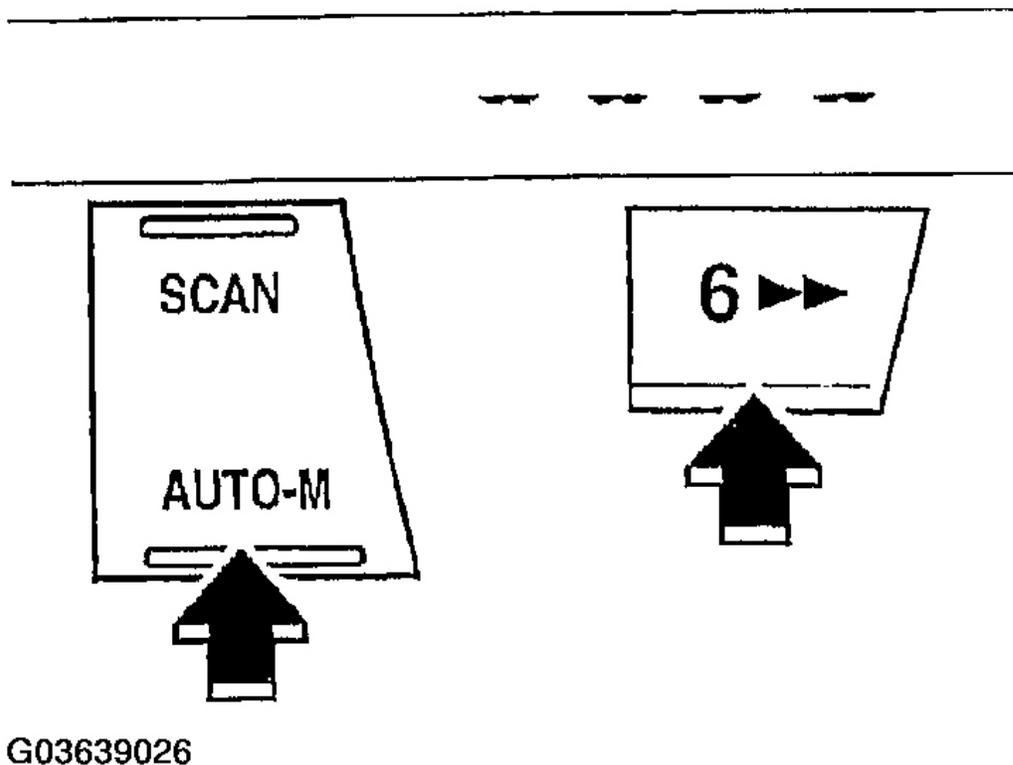
### CANCELING ANTI-THEFT OPERATION

Properly input the selected code number to deactivate the anti-theft system and resume normal audio operation.

1. Turn the ignition switch to ACC position. ("CODE" will flash on the display.)
2. First press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds** until dashes appears on the display.

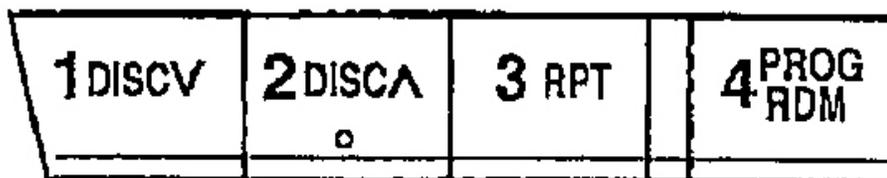
**NOTE:**

- Perform Step 3 within 10 seconds after Step 2.



**Fig. 33: Pressing AUTO-M Button and Channel Button 6 Until Dashes Appear On Display**  
Courtesy of MAZDA MOTORS CORP.

3. Use channel buttons 1-4 to input the selected code number. Press button 1 for the first digit, 2 for the second, 3 for the third, and 4 for the last digit. Input the number **within 10 seconds**. If the display is deleted, repeat the procedure from Step 1.



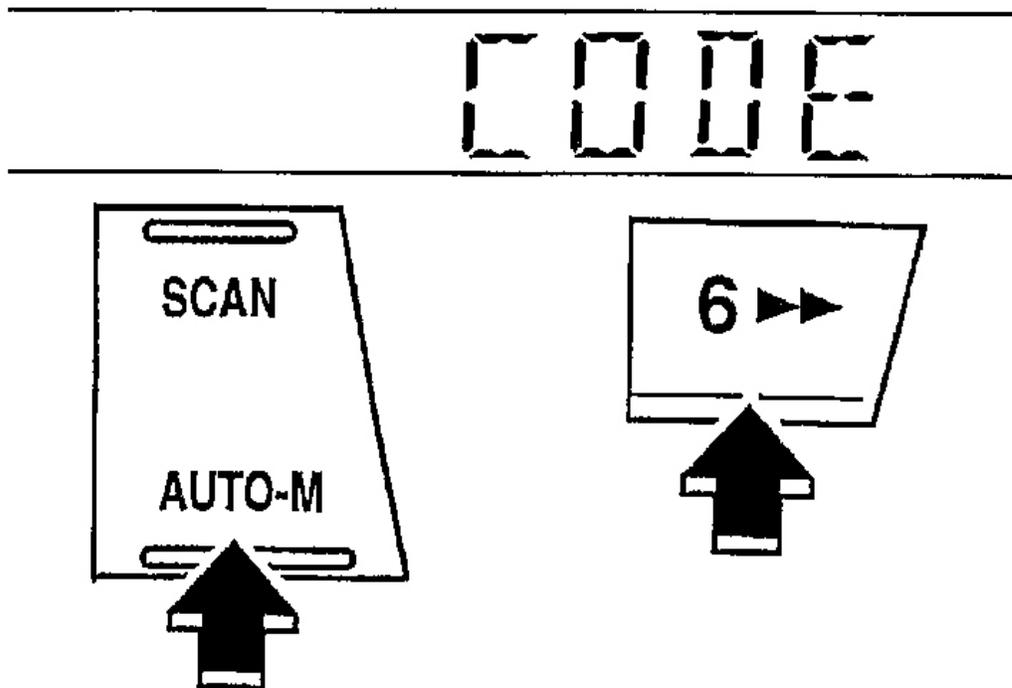
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**Fig. 34: Inputting Code Number**  
Courtesy of MAZDA MOTORS CORP.

**CAUTION:**

- Three consecutive errors, including turning the ignition switch to LOCK position and disconnecting the audio unit, will activate the anti-theft system and render the audio unit completely inoperative.

4. With the code number displayed, press the AUTO-M button, then simultaneously press channel button 6 for **approximately 2 seconds**. "CODE" will flash for **approximately 5 seconds**.
5. If "Err" (error) appears on the display, repeat the procedure from Step 1.

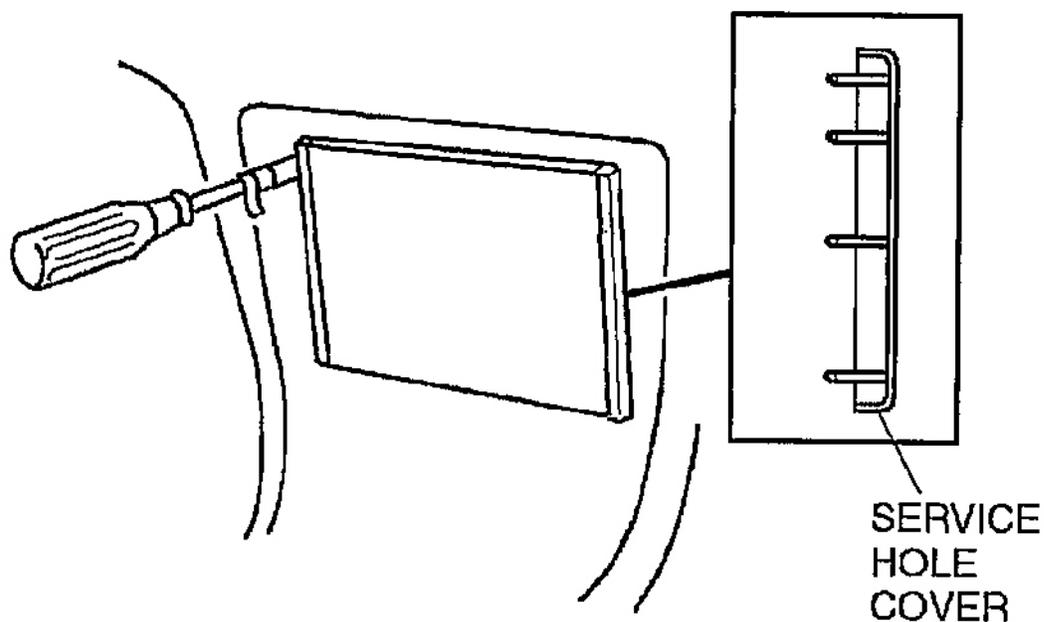


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**Fig. 35: Pressing AUTO-M Button and Channel Button 6 Until "CODE" Appears On Display**  
Courtesy of MAZDA MOTORS CORP.

## AUDIO UNIT REMOVAL

1. Cancel the anti-theft operation. (For vehicles equipped with anti-theft system)
2. Disconnect the negative battery cable.
3. Remove the service hole covers by inserting a small tape-wrapped flathead screwdriver into the slot and carefully pry them off without scratching the center panel. Pry up and pull off the service hole covers carefully to prevent the posts from breaking off.



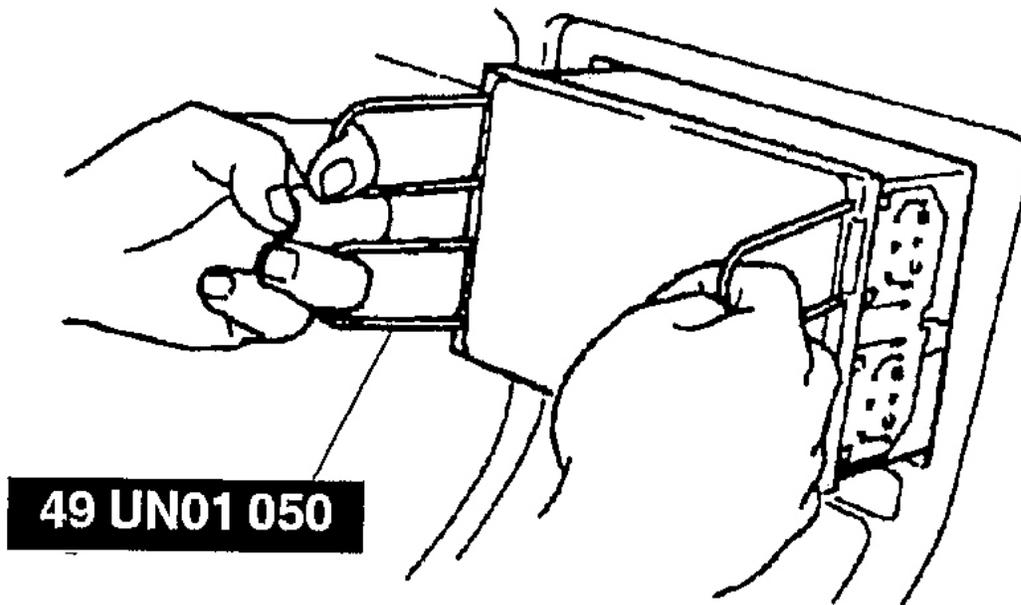
G03639029

**Fig. 36: Removing Service Hole Covers**  
Courtesy of MAZDA MOTORS CORP.

**NOTE:**

- **Two sets of the SSTs (Removing tool) are necessary to remove the audio unit.**

4. With the beveled parts of the **SST (Removing tool)** facing inward, insert them into the audio unit.
5. Pull the **SST (Removing tool)** outward and rearward to slide out the audio unit.
6. Disconnect the audio unit connectors and antenna jacks.



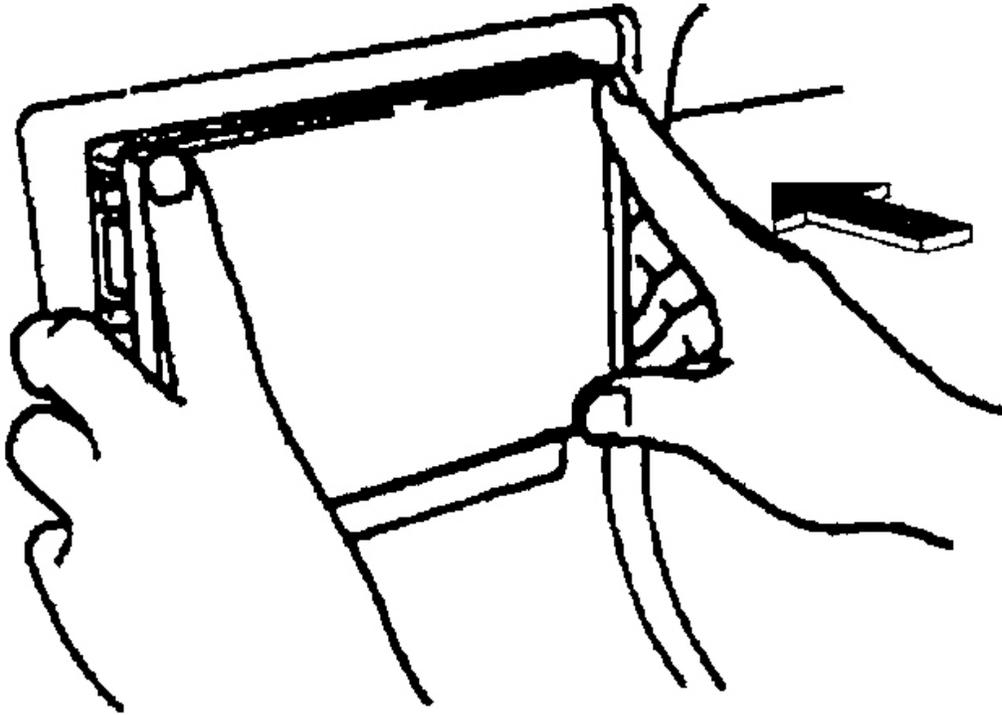
G03639030

**Fig. 37: Removing Audio Unit**  
Courtesy of MAZDA MOTORS CORP.

## AUDIO UNIT INSTALLATION

- CAUTION:**
- Make certain that the wiring harness and antenna feeder are not caught between the unit and dashboard. If the harness or the antenna feeder is caught between the unit and dashboard, it may become the cause of trouble or malfunctions.

1. Install the audio unit service hole covers.
2. Connect the audio unit connectors and antenna jacks.
3. Insert the audio unit until each clip clicks.
4. Connect the negative battery cable.
5. Operate the anti-theft system by setting the code number. (For vehicles equipped with anti-theft system)

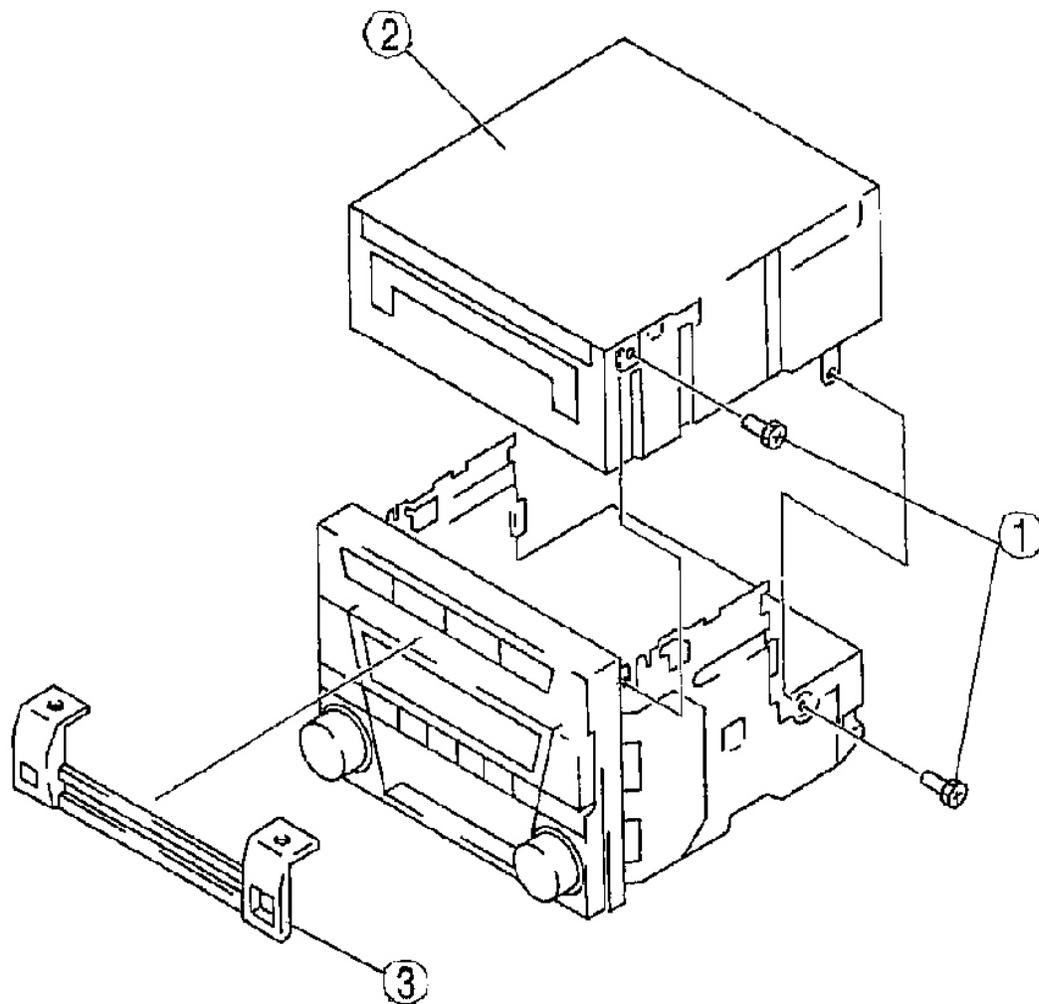


G03639031

**Fig. 38: Installing Audio Unit Service Hole Covers**  
Courtesy of MAZDA MOTORS CORP.

## UPPER MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the audio unit. (See AUDIO UNIT REMOVAL.)
3. Remove in the order indicated in the table.



1	Screw (See Screw Installation Note.)
2	Upper module (See Upper Module Removal Note.)
3	Cover (See Cover Removal Note.)

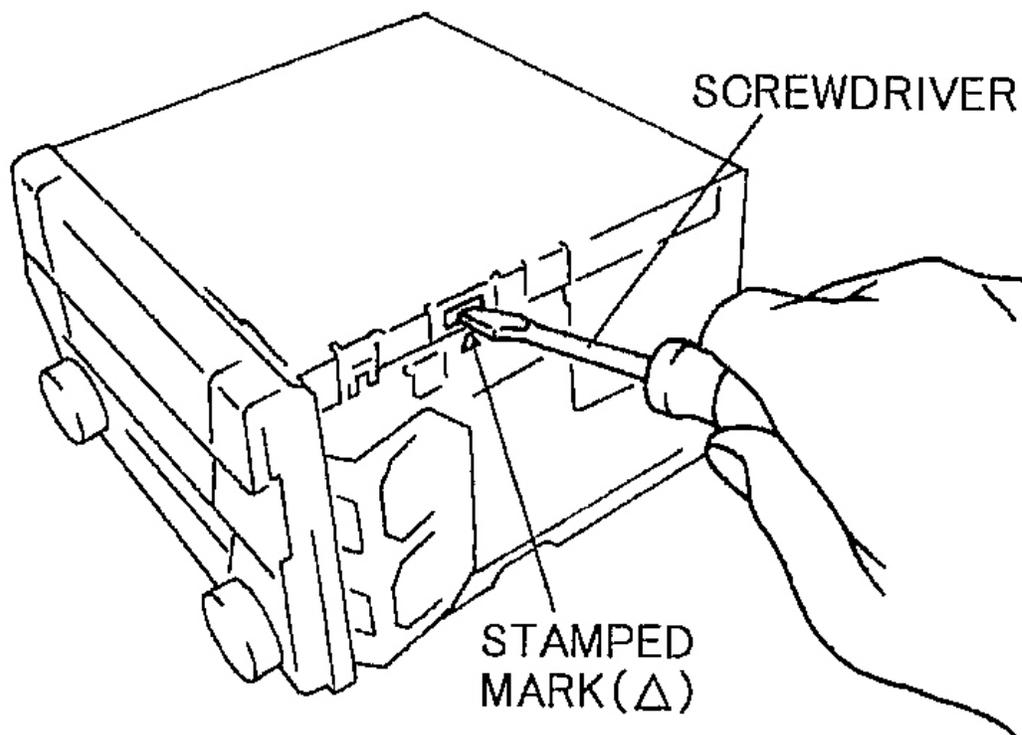
G03639032

**Fig. 39: Removing Upper Module**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the order of removal.

### UPPER MODULE REMOVAL NOTE

1. Insert a screwdriver into the hole stamped mark.
2. To remove upper module, lift it by pushing down the screwdriver's handle.

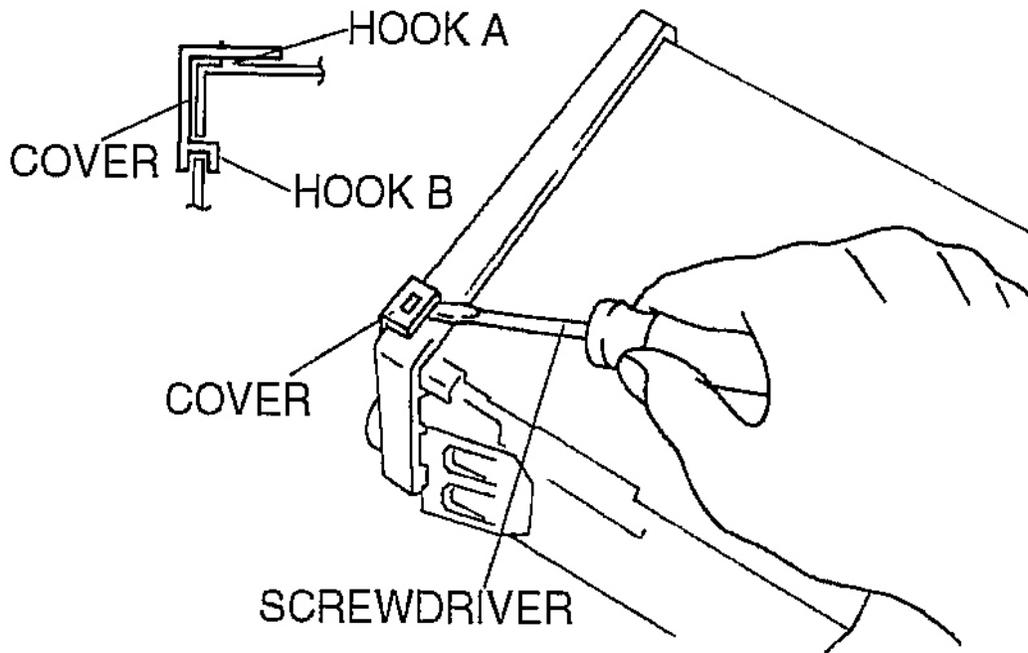


G03639033

**Fig. 40: Removing Upper Module**  
Courtesy of MAZDA MOTORS CORP.

### COVER REMOVAL NOTE

1. Insert a tape-wrapped screwdriver between the cover and the base unit, then unhook the hook A.
2. To unhook the hook B, pull the cover upward.



G03639034

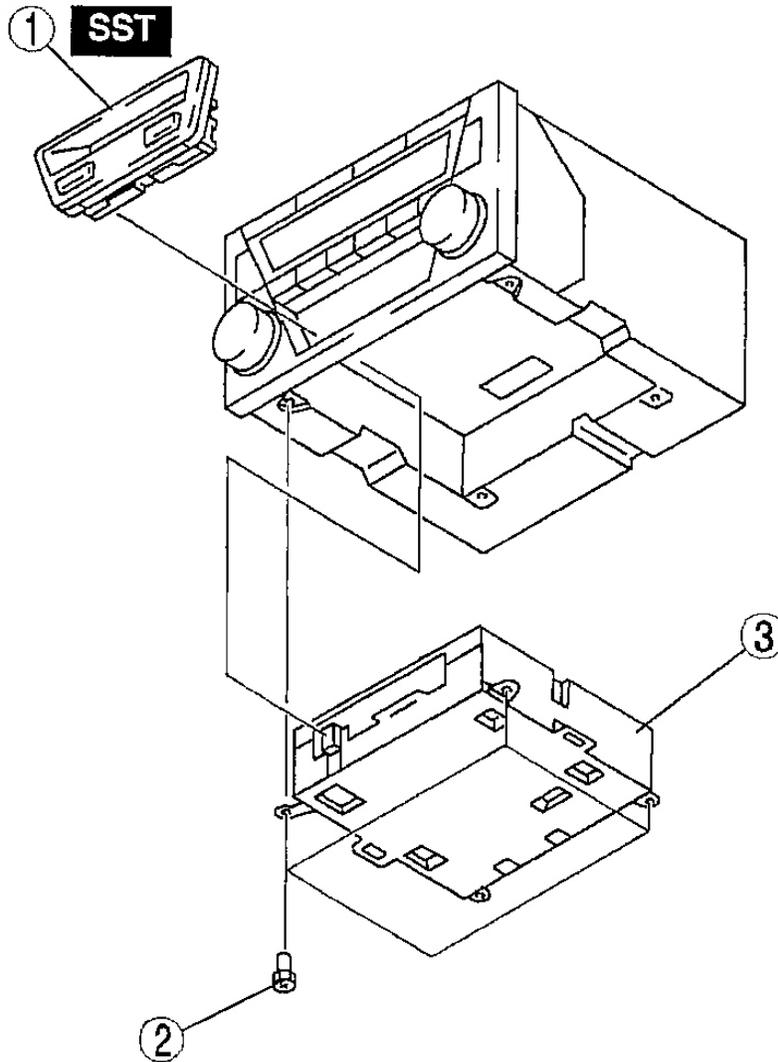
**Fig. 41: Removing Cover**  
Courtesy of MAZDA MOTORS CORP.

#### SCREW INSTALLATION NOTE

- CAUTION:**
- If an undesignated screw is used, the inside of the upper module could be damaged. When installing the module, be sure to use a designated screw (red).

#### LOWER MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the audio unit. (See **AUDIO UNIT REMOVAL**.)
3. Remove in the order indicated in the table.



1	Cover (See Cover Removal Note.)
2	Screw (See Screw Installation Note.)
3	Lower module

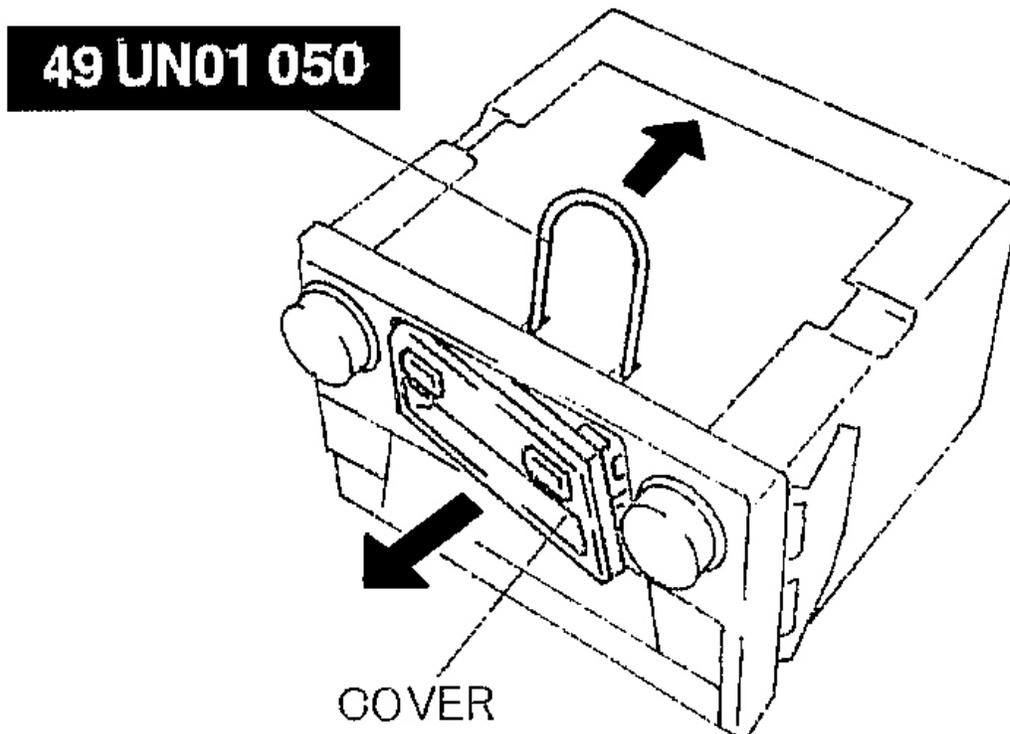
G03639035

**Fig. 42: Removing Lower Module**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the order of removal.

### COVER REMOVAL NOTE

1. Insert the SST into the service holes on the bottom surface of the lower module.
2. To remove the cover, push the SST in the direction shown by the arrow.



G03639036

**Fig. 43: Removing Cover**  
Courtesy of MAZDA MOTORS CORP.

### SCREW INSTALLATION NOTE

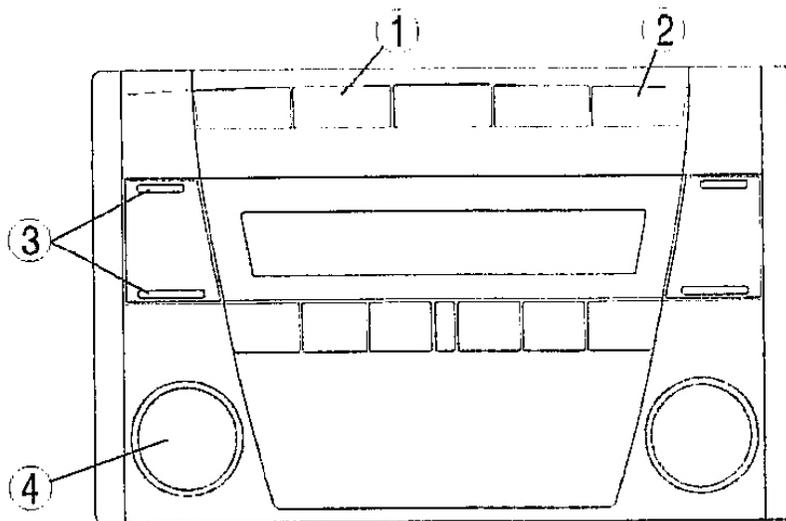
- CAUTION:**
- If an undesignated screw is used, the inside of the upper module could be damaged. When installing the module, be sure to use a designated screw (red).

### STARTING PROCEDURE FOR ON-BOARD DIAGNOSTIC TEST MODE

- NOTE:**
- All DTCs displayed in the on-board diagnostic test mode should be

entered in the Audio Exchange Order Form.

1. Turn the ignition switch to the ACC or ON position.
2. First press the POWER button and hold it, then press the SAT button and CLOCK button for **2 seconds or more**.



1	SAT button
2	CLOCK button
3	SEEK button
4	POWER button

G03639037

**Fig. 44: Identifying Audio Buttons**  
 Courtesy of MAZDA MOTORS CORP.

**NOTE:**

- If several DTCs are in the memory, they can be displayed using the **SEEK button**.

3. To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.

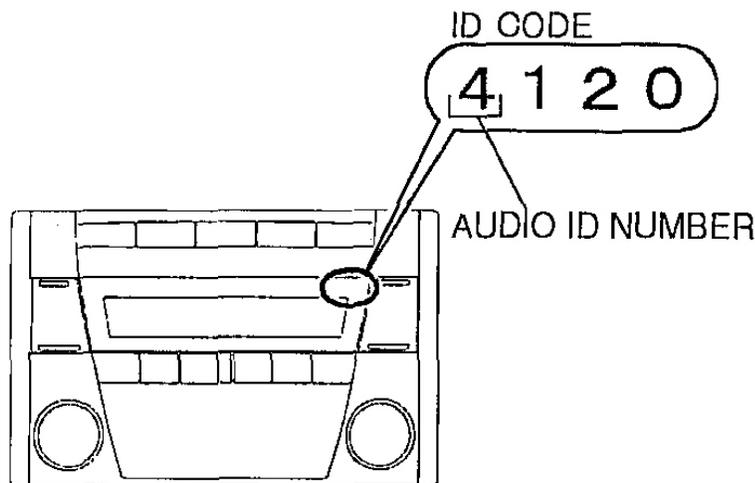
## SUPPLIER IDENTIFICATION PROCEDURE

**NOTE:**

- When asking the supplier (service center) for repair or replace, verify which supplier the module belongs to and enter in the Audio Exchange Order Form. Use the table and illustration below to determine the audio supplier.

**IDENTIFICATION WITH PRINTED NUMBERS/LABEL BASE UNIT**

1. To get the supplier name, compare the leftmost number of the ID code (4 digits), printed on the upper right corner of the LCD, with the table below.



Audio ID number	Supplier name
1	Panasonic
2	Clarion
4	FMS Audio

G03639038

**Fig. 45: Identifying Audio ID Number**  
 Courtesy of MAZDA MOTORS CORP.

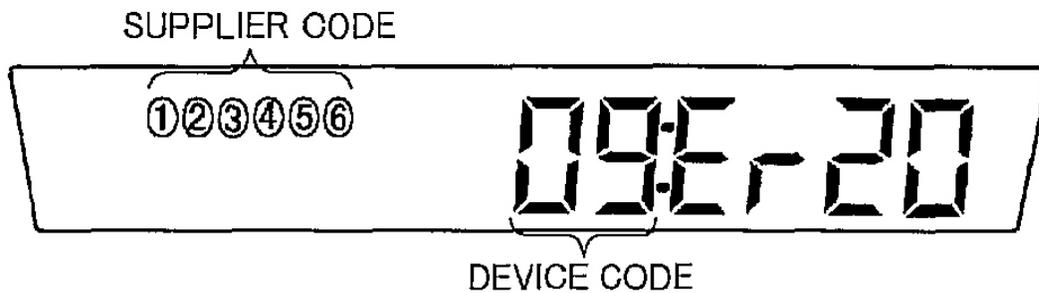
**Upper/lower module**

1. Remove the audio unit.
2. Verify the supplier name written in the label attached on each module.

**IDENTIFICATION WITH ON-BOARD DIAGNOSTIC TEST MODE**

1. Start the on-board diagnostic test mode.
2. Verify the device code and supplier code displayed in the LCD.

**NOTE:**                      • When no DTCs are in the memory, device code and supplier codes will not be displayed.



G03639039

**Fig. 46: Displaying Device Code And Supplier Codes**  
 Courtesy of MAZDA MOTORS CORP.

**DEVICE CODE**

Device code	Parts name
00	Cassette deck (lower module)
03	CD player (upper module)
05	CD changer (external type)
06	CD changer (upper module)
07	MD player (lower module)
09	Base unit
10	CD player system MP3 operation

**SUPPLIER CODE**

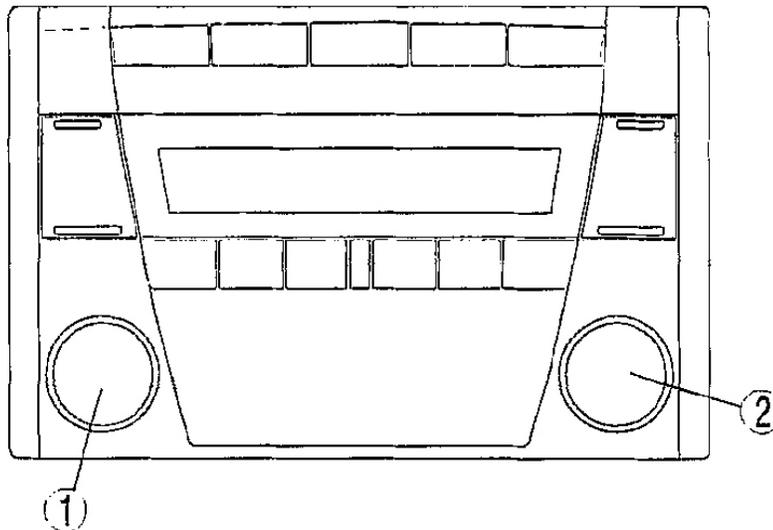
Supplier code	Supplier name
1	FMS Audio
2	Panasonic
3	Clarion

**DTC CLEARING PROCEDURE**

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1. Start the on-board diagnostic test mode.
2. First press the POWER button and hold it, then press AUDIO CONT button for **2 seconds or more**.



1	POWER button
2	AUDIO CONT button

G03639040

**Fig. 47: Identifying POWER Button & AUDIO CONT Button**  
 Courtesy of MAZDA MOTORS CORP.

**CAUTION:**

- Before clearing the DTCs, be sure to enter all of them displayed in the onboard diagnostic test mode in the Audio Exchange Order Form.

3. To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.

## DTC TABLE

### DTC TABLE

Screen display		Malfunction location
DTC	Output signal	
<b>DTC 09:ER22</b>	-	Base unit (peripheral circuit)
<b>DTC 09:ER20</b>	-	Power supply circuit of base unit
<b>DTC 00:ER10</b>	-	Cassette deck-base unit

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		communication line
<b><u>DTC 03:ER10</u></b>	-	CD player-base unit communication line
<b><u>DTC 05:ER10</u></b>	-	CD changer (external type)-base unit communication line
<b><u>DTC 06:ER10</u></b>	-	CD changer (upper module)-base unit communication line
<b><u>DTC 07:ER10</u></b>	-	MD player-base unit communication line
<b><u>DTC 03:ER01</u></b>	-	CD player
<b><u>DTC 03:ER02</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD player
<b><u>DTC 03:ER07</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD player
<b><u>DTC 00:ER01</u></b>	-	Cassette deck
<b><u>DTC 00:ER03</u></b>	-	Cassette deck
<b><u>DTC 00:ER04</u></b>	CHECK <sup>(1)</sup> TAPE <sup>(2)</sup>	Cassette tape
<b><u>DTC 05:ER01</u></b>	-	CD changer (external type)
<b><u>DTC 05:ER07</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD changer (external type)
<b><u>DTC 06:ER01</u></b>	-	CD changer (upper module)
<b><u>DTC 06:ER02</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD changer (upper module)
<b><u>DTC 06:ER07</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD changer (upper module)
<b><u>DTC 07:ER01</u></b>	-	MD player
<b><u>DTC 07:ER02</u></b>	CHECK <sup>(1)</sup> MD <sup>(2)</sup>	MD player
<b><u>DTC 07:ER02</u></b>	CHECK <sup>(1)</sup> MD <sup>(2)</sup>	MD player
<b><u>DTC 10:ER01</u></b>	-	CD player system MP3 operation
<b><u>DTC 10:ER02</u></b>	CHECK <sup>(1)</sup> CD <sup>(2)</sup>	CD player system MP3 operation
no Err	-	No stored DTCs
<p>(1) When an error occurs, the error messages are displayed three times in the order of *1 and *2, respectively.</p> <p>(2) When an error occurs, the error messages are displayed three times in the order of *1 and *2, respectively.</p>		

## DTC 09:ER22

<b>DTC 09:Er22</b>	Base unit (peripheral circuit)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects malfunction in its inner circuit (related to tuner).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Base unit malfunction</li> </ul>

G03753405

**Fig. 48: DTC 09:ER22 - Detection Condition & Possible Cause**

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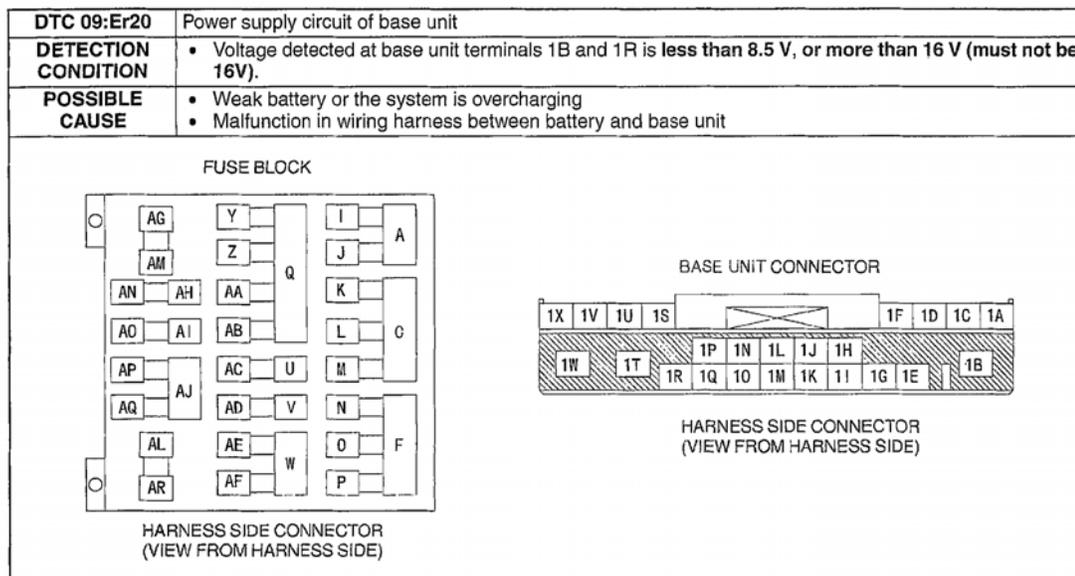
Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 09:ER22 - DIAGNOSTIC PROCEDURE

INSPECTION	ACTION				
<b>INSPECT BASE UNIT</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn on radio and operate it for <b>3 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 09:Er22 displayed?</li> </ul>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">Yes</td> <td>Replace base unit.</td> </tr> <tr> <td style="text-align: center;">No</td> <td>Troubleshooting completed.</td> </tr> </table>	Yes	Replace base unit.	No	Troubleshooting completed.
Yes	Replace base unit.				
No	Troubleshooting completed.				

#### DTC 09:ER20



G03639041

**Fig. 49: DTC 09:ER20 - Detection Condition & Possible Cause**

Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 09:ER20 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION				
1	<b>INSPECT BATTERY</b> <ul style="list-style-type: none"> <li>Measure battery voltage.</li> </ul>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">Yes</td> <td>Go to next step.</td> </tr> <tr> <td style="text-align: center;">No</td> <td>Battery is weak or the system is overcharging.</td> </tr> </table>	Yes	Go to next step.	No	Battery is weak or the system is overcharging.
Yes	Go to next step.					
No	Battery is weak or the system is overcharging.					

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	<ul style="list-style-type: none"> <li>Is voltage <b>8.5 V-16 V</b> ?</li> </ul>		<ul style="list-style-type: none"> <li>Inspect charge/discharge system.</li> </ul>
2	<b>INSPECT WIRING HARNESS BETWEEN BATTERY AND FUSE BLOCK</b> <ul style="list-style-type: none"> <li>Measure voltage at fuse block terminals I and AE.</li> <li>Is voltage <b>8.5 V-16 V</b> ?</li> </ul>	Yes	Go to next step.
		No	Repair wiring harness between battery and fuse block.
3	<b>INSPECT WIRING HARNESS BETWEEN FUSE BLOCK AND BASE UNIT</b> <ul style="list-style-type: none"> <li>Measure voltage at base unit connector terminals 1B and 1R.</li> <li>Is voltage <b>8.5 V-16 V</b> ?</li> </ul>	Yes	Go to next step.
		No	Repair wiring harness between fuse block and base unit.
4	<b>INSPECT BASE UNIT</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn ignition switch to ACC or ON position and hold for <b>30 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 09:Er20 displayed?</li> </ul>	Yes	Replace base unit.
		No	Troubleshooting completed.

### DTC 00:ER10

<b>DTC 00:Er10</b>	Cassette deck —base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects communication error with cassette deck (lower module).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Malfunction of connectors between base unit and cassette deck (lower module)</li> <li>Cassette deck (lower module) malfunction</li> <li>Base unit malfunction</li> </ul>

G03753406

**Fig. 50: DTC 00:ER10 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 00:ER10 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>Remove cassette deck (lower module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>Deformation of pin</li> <li>Poor connection of female terminal</li> </ul> </li> </ul>	Yes Go to next step.
		No Repair connector, then go to next

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	<ul style="list-style-type: none"> <li>○ Pinching of foreign material</li> <li>● Is connector okay?</li> </ul>		step.
2	<b>VERIFY THAT CASSETTE DECK (LOWER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>● Install cassette deck (lower module) and verify its installation condition.</li> <li>● Is cassette deck securely installed?</li> </ul>	Yes	Go to next step.
		No	Securely install cassette deck (lower module), then go to next step.
3	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>● Clean DTC.</li> <li>● Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> <li>● Start on-board diagnostic test mode.</li> <li>● Is DTC 00:Er10 displayed?</li> </ul>	Yes	Replace base unit and cassette deck (lower module).
		No	Troubleshooting completed.

## DTC 03:ER10

<b>DTC 03:Er10</b>	CD player—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>● Base unit detects communication error with CD player (upper module).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>● Malfunction of connectors between base unit and CD player (upper module)</li> <li>● CD player (upper module) malfunction</li> <li>● Base unit malfunction</li> </ul>

G03753407

**Fig. 51: DTC 03:ER10 - Detection Condition & Possible Cause**  
Courtesy of MAZDA MOTORS CORP.

## DIAGNOSTIC PROCEDURE

### DTC 03:ER10 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>● Remove CD player (upper module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>○ Deformation of pin</li> <li>○ Poor connection of female terminal</li> <li>○ Pinching of foreign material</li> </ul> </li> <li>● Is connector okay?</li> </ul>	Yes	Go to next step.
		No	Repair connector, then go to next step.
	<b>VERIFY THAT CD PLAYER (UPPER MODULE) IS INSTALLED WITH BASE UNIT</b>	Yes	Go to next step.

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2	<ul style="list-style-type: none"> <li>• Install CD player (upper module) and verify its installation condition.</li> <li>• Is CD player securely installed?</li> </ul>	No	Securely install CD player (upper module), then go to next step.
3	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 03:Er10 displayed?</li> </ul>	Yes	Replace base unit and CD player (upper module).
		No	Troubleshooting completed.

### DTC 05: ER10

<b>DTC 05:Er10</b>	CD changer—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with CD changer (external type)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and CD changer (external type)</li> <li>• CD changer (external type) malfunction</li> <li>• Base unit malfunction</li> </ul>

G03753408

**Fig. 52: DTC 05:ER10 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 05:ER10 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Inspect base unit and CD changer (external type) connectors for connection.</li> <li>• Are connectors securely connected?</li> </ul>	Yes	Go to next step.
		No	Reconnected connector, then go to next step.
2	<b>INSPECT WIRING HARNESS BETWEEN CD CHANGER (EXTERNAL TYPE) AND BASE UNIT</b> <ul style="list-style-type: none"> <li>• Inspect wiring harness between base unit and CD changer (external type).</li> <li>• Is wiring harness okay?</li> </ul>	Yes	Go to next step.
		No	Securely install CD changer (external type), then go to next step.
3	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> </ul>	Yes	Replace base unit and CD changer (external type).
		No	

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- Start on-board diagnostic test mode.
- Is DTC 05:Er10 displayed?

No

Troubleshooting completed.

### DTC 06: ER10

<b>DTC 06:Er10</b>	CD changer—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with CD changer (upper module)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and CD changer (upper module)</li> <li>• CD changer (upper module) malfunction</li> <li>• Base unit malfunction</li> </ul>

G03753409

**Fig. 53: DTC 06:ER10 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 06:ER10 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Remove CD changer (upper module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>○ Deformation of pin</li> <li>○ Poor connection of female terminal</li> <li>○ Pinching of foreign material</li> </ul> </li> <li>• Is connector okay?</li> </ul>	Yes	Go to next step.
		No	Repair connector, then go to next step.
2	<b>VERIFY THAT CD CHANGER (UPPER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>• Install CD changer (upper module) and verify its installation condition.</li> <li>• Is CD changer (upper module) securely installed?</li> </ul>	Yes	Go to next step.
		No	Securely install CD changer (upper module), then go to next step.
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 06:Er10 displayed?</li> </ul>	Yes	Replace base unit and CD changer (upper module).
		No	Troubleshooting completed.

### DTC 07: ER10

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<b>DTC 07:Er10</b>	MD player—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with MD player (lower module)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and MD player (lower module)</li> <li>• MD player (lower module) malfunction</li> <li>• Base unit malfunction</li> </ul>

G03753410

**Fig. 54: DTC 07:ER10 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 07:ER10 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Remove MD player (lower module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>○ Deformation of pin</li> <li>○ Poor connection of female terminal</li> <li>○ Pinching of foreign material</li> </ul> </li> <li>• Is connector okay?</li> </ul>	Yes	Go to next step.
		No	Repair connector, then go to next step.
2	<b>VERIFY THAT MD PLAYER (LOWER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>• Install MD player (lower module) and verify its installation condition.</li> <li>• Is MD player (lower module) securely installed?</li> </ul>	Yes	Go to next step.
		No	Securely install MD player (lower module), then go to next step.
3	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 07:Er10 displayed?</li> </ul>	Yes	Replace base unit and MD player (lower module).
		No	Troubleshooting completed.

### DTC 03: ER01

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<b>DTC 03:Er01</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>CD player (upper module) cannot implement insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (broken or foreign material stuck/attached)</li> <li>CD player (upper module) malfunction</li> </ul>

G03753411

**Fig. 55: DTC 03:ER01 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 03:ER01 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is CD able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace CD player (upper module).
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
3	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 03:Er01 displayed?</li> </ul>	Yes	Replace CD player (upper module).
		No	Troubleshooting completed.

### DTC 03: ER02

<b>DTC 03:Er02</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Cannot play CD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD player (upper module) malfunction</li> </ul>

G03753412

**Fig. 56: DTC 03:ER02 - Detection Condition & Possible Cause**

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Courtesy of MAZDA MOTORS CORP.

**DIAGNOSTIC PROCEDURE**

**DTC 03:ER02 - DIAGNOSTIC PROCEDURE**

STEP	INSPECTION	ACTION		
1	<p align="center"><b>VERIFY WHETHER MALFUNCTION IS IN CD PLAYER (UPPER MODULE) OR CD</b></p> <ul style="list-style-type: none"> <li>• Play CD and select other song (change tracks).</li> <li>• Does CD player change tracks?</li> </ul>	Yes	Go to Step 3.	
			Not able to change particular tracks.	Go to next step.
		No	Not able to change any tracks.	Change CD and perform tracks-change again. <ul style="list-style-type: none"> <li>• If CD player change tracks, then go to Step 3.</li> <li>• If not, replace CD player (upper module).</li> </ul>
2	<p align="center"><b>INSPECT CD</b></p> <ul style="list-style-type: none"> <li>• Inspect condition of CD where error has occurred.</li> <li>• Is CD okay?</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>• In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<p align="center"><b>INSPECT CD PLAYER (UPPER MODULE)</b></p> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Play CD and select other song (change tracks).</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 03:Er02 displayed?</li> </ul>	Yes	Replace CD player (upper module).	
		No	Troubleshooting completed.	

**DTC 03: ER07**

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<b>DTC 03:Er07</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD player (upper module) malfunction</li> </ul>

G03753413

### **Fig. 57: DTC 03:ER07 - Detection Condition & Possible Cause**

Courtesy of MAZDA MOTORS CORP.

## DIAGNOSTIC PROCEDURE

### DTC 03:ER07 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION
1	<p><b>INSPECT CD</b></p> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes Go to next step.
		No Repair (remove foreign material) or replace CD, then go to next step.
2	<p><b>INSPECT CD PLAYER (UPPER MODULE)</b></p> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 03:Er07 displayed?</li> </ul>	Yes Replace CD player (upper module).
		No Troubleshooting completed.

## DTC 00: ER01

<b>DTC 00:Er01</b>	Cassette deck (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Cassette deck (lower module) cannot implement insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective cassette tape (deformation, broken, or foreign material stuck/attached)</li> <li>Cassette deck (lower module) malfunction</li> </ul>

G03753414

### **Fig. 58: DTC 00:ER01 - Detection Condition & Possible Cause**

Courtesy of MAZDA MOTORS CORP.

## DIAGNOSTIC PROCEDURE

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### DTC 00:ER01 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is cassette tape able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace cassette deck (lower module).
2	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>Inspect condition of cassette tape where error has occurred.</li> <li>Is cassette tape okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace cassette tape, then go to next step.
3	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject cassette tape with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 00:Er01 displayed?</li> </ul>	Yes	Replace cassette deck (lower module).
		No	Troubleshooting completed.

### DTC 00: ER03

<b>DTC 00:Er03</b>	Cassette deck (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects that reel built into cassette deck does not operate.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective cassette tape (tape slack, pinched tape in internal cassette deck)</li> <li>Cassette deck (lower module) malfunction</li> </ul>

G03753415

**Fig. 59: DTC 00:ER03 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 00:ER03 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>Inspect condition of cassette tape where error has occurred.</li> <li>Is cassette tape okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove tape slack or repair pinched tape) or replace cassette tape, then go to next step.
	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert cassette tape with no</li> </ul>	Yes	Replace cassette deck (lower module).

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2	defect. <ul style="list-style-type: none"> <li>• Play cassette tape for <b>20 seconds or more.</b></li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 00:Er03 displayed?</li> </ul>	No	Troubleshooting completed.
---	--	----	----------------------------

## DTC 00:ER04

<b>DTC 00:Er04</b>	Cassette tape
<b>DETECTION CONDITION</b>	<b>Note</b> <ul style="list-style-type: none"> <li>• When error occurs, error message "CHECK TAPE" is displayed in the LCD.</li> <li>• Cassette tape is worn out.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Tape wear</li> <li>• Cassette deck (lower module) malfunction</li> </ul>

G03753416

**Fig. 60: DTC 00:ER04 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

## DIAGNOSTIC PROCEDURE

### DTC 00:ER04 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION
1	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>• Inspect condition of cassette tape where error has occurred.</li> <li>• Is cassette tape okay?</li> </ul>	Yes Go to next step.
		No Replace cassette tape, then go to next step.
2	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Insert cassette tape with no defect.</li> <li>• Play cassette tape for <b>20 seconds or more.</b></li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 00:Er04 displayed?</li> </ul>	Yes Replace cassette deck (lower module).
		No Troubleshooting completed.

## DTC 05:ER01

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<b>DTC 05:Er01</b>	CD changer (external type)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Changer function does not operate.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective CD (broken or foreign material)</li> <li>• Magazine malfunction</li> <li>• CD changer (external type) malfunction</li> </ul>

G03753417

**Fig. 61: DTC 05:ER01 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 05:ER01 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER OR OTHER PARTS</b> <ul style="list-style-type: none"> <li>• Operate changer function.</li> <li>• Is function okay?</li> </ul>	Yes	Go to Step 4.	
		No	Not able to change particular CD.	Go to next step.
			Not able to change any CD.	Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>• Inspect condition of CD where error has occurred.</li> <li>• Is CD okay?</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>• In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT MAGAZINE</b> <ul style="list-style-type: none"> <li>• Inspect magazine.</li> <li>• Is magazine okay?</li> </ul>	Yes	Go to next step.	
		No	Repair or replace magazine, then go to next step.	
4	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Operate changer function.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 05:Er01 displayed?</li> </ul>	Yes	Replace CD changer (external type).	
		No	Troubleshooting completed.	

### DTC 05:ER07

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<b>DTC 05:Er07</b>	CD changer (external type)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD changer (external type) malfunction</li> </ul>

G03753418

**Fig. 62: DTC 05:ER07 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 05:ER07 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER OR OTHER PARTS</b> <ul style="list-style-type: none"> <li>Play all CD in magazine.</li> <li>Is CD changer able to read them properly?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to change particular CD.	Go to next step.
			Not able to change any CD.	Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 05:Er07 displayed?</li> </ul>	Yes	Replace CD changer (external type).	
		No	Troubleshooting completed.	

### DTC 06:ER01

<b>DTC 06:Er01</b>	CD changer: (upper module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>CD changer (upper module) cannot implement insert, eject, disc change commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (broken or foreign material stuck/attached)</li> <li>CD changer (upper module) malfunction</li> </ul>

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**Fig. 63: DTC 06:ER01 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

**DIAGNOSTIC PROCEDURE**

**DTC 06:ER01 - DIAGNOSTIC PROCEDURE**

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> <li>Is CD able to be ejected?</li> </ul>	Yes Go to next step.
		No Replace CD changer (upper module).
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes Go to next step.
		No Repair (remove foreign material) or replace CD, then go to next step.
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er01 displayed?</li> </ul>	Yes Replace CD changer (upper module).
		No Troubleshooting completed.

**DTC 06:ER02**

<b>DTC 06:Er02</b>	CD changer (upper module)
<b>DETECTION CONDITION</b>	<b>Note</b> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Cannot play CD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD changer (upper module) malfunction</li> </ul>

G03753420

**Fig. 64: DTC 06:ER02 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

**DIAGNOSTIC PROCEDURE**

**DTC 06:ER02 - DIAGNOSTIC PROCEDURE**

STEP	INSPECTION	ACTION
		Yes Go to Step 3.

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1	<p><b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER (UPPER MODULE) OR CD</b></p> <ul style="list-style-type: none"> <li>• Play all CDs in changer and select other song (change tracks).</li> <li>• Is CD changer able to change tracks?</li> </ul>	No	<p>Not able to change particular tracks.</p> <p>Go to next step.</p>
		Yes	<p>Not able to change any tracks.</p> <p>Change CD and perform tracks-change again.</p> <ul style="list-style-type: none"> <li>• If CD changer change tracks, then go to Step 3.</li> <li>• If not, replace CD changer (upper module).</li> </ul>
2	<p><b>INSPECT CD</b></p> <ul style="list-style-type: none"> <li>• Inspect condition of CD where error has occurred.</li> <li>• Is CD okay?</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>• In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
3	<p><b>INSPECT CD CHANGER (UPPER MODULE)</b></p> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Play CD and select other song (change tracks).</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 06:Er02 displayed?</li> </ul>	Yes	Replace CD changer (upper module).
		No	Troubleshooting completed.

### DTC 06:ER07

<b>DTC 06:Er07</b>	CD changer (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>• When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>• Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective CD (scratches or dirt)</li> <li>• CD changer (upper module) malfunction</li> </ul>

G03753421

**Fig. 65: DTC 06:ER07 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

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### DTC 06:ER07 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER (UPPER MODULE) OR CD</b> <ul style="list-style-type: none"> <li>Play all CDs in changer.</li> <li>Is CD changer able to read them properly?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to read particular CD.	Go to next step.
			Not able to read any CD.	Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD for <b>12 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er07 displayed?</li> </ul>	Yes	Replace CD changer (upper module).	
		No	Troubleshooting completed.	

### DTC 07:ER01

<b>DTC 07:Er01</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>MD player (lower module) cannot implement insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective MD (broken or foreign material stuck/attached)</li> <li>MD player (lower module) malfunction</li> </ul>

G03753422

**Fig. 66: DTC 07:ER01 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 07:ER01 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is MD able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace MD player (lower module).
2	<b>INSPECT MD</b> <ul style="list-style-type: none"> <li>Inspect condition of MD where error</li> </ul>	Yes	Go to next step.
			Repair (remove foreign material) or replace MD.

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	has occurred. • Is MD okay?	No	then go to next step.
3	<b>INSPECT MD PLAYER (LOWER MODULE)</b>  • Clear DTC. • Insert and eject MD with no defect. • Start on-board diagnostic test mode. • Is DTC 07:Er01 displayed?	Yes	Replace MD player (lower module).
		No	Troubleshooting completed.

### DTC 07:ER02

<b>DTC 07:Er02</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<b>Note</b> • When error occurs, error message "CHECK MD" is displayed in the LCD.  • Cannot play MD normally or change tracks.
<b>POSSIBLE CAUSE</b>	• Defective MD (scratches or dirt) • MD player (lower module) malfunction

G03753423

**Fig. 67: DTC 07:ER02 - Detection Condition & Possible Cause**

Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 07:ER02 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>VERIFY WHETHER MALFUNCTION IS IN MD PLAYER (LOWER MODULE) OR MD</b>  • Play MD and select other song (change tracks). • Is MD player able to change tracks?	Yes	Go to Step 3.
		No	Not able to change particular tracks. Go to next step.  Not able to change any tracks.  Change MD and perform tracks-change again.  • If MD player change tracks, then go to Step 3. • If not, replace MD player (lower module).
2	<b>INSPECT MD</b>  • Inspect condition of MD where error has occurred. • Is MD okay?	Yes	Go to next step.
		No	Repair (remove foreign material) or replace MD, then go to next step.

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3	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Play MD and select other song (change tracks).</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 07:Er02 displayed?</li> </ul>	Yes	Replace MD player (lower module).
		No	Troubleshooting completed.

### DTC 07:ER07

<b>DTC 07:Er07</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<b>Note</b> <ul style="list-style-type: none"> <li>• When error occurs, error message "CHECK MD" is displayed in the LCD.</li> <li>• Base unit detects MD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective MD (scratches or dirt)</li> <li>• MD player (lower module) malfunction</li> </ul>

G03753424

**Fig. 68: DTC 07:ER07 - Detection Condition & Possible Cause**  
 Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 07:ER07 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION	
1	<b>INSPECT MD</b> <ul style="list-style-type: none"> <li>• Inspect condition of MD where error has occurred.</li> <li>• Is MD okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace MD, then go to next step.
2	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Insert and play MD for <b>12 seconds or more.</b></li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 07:Er07 displayed?</li> </ul>	Yes	Replace MD player (lower module).
		No	Troubleshooting completed.

### DTC 10:ER01

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<b>DTC 10:Er01</b>	CD player system MP3 operation
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• CD player cannot implement insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective CD (broken or foreign material stuck/attached)</li> <li>• CD player system MP3 operation malfunction</li> </ul>

G03753425

**Fig. 69: DTC 10:ER01 - Detection Condition & Possible Cause**  
Courtesy of MAZDA MOTORS CORP.

### DIAGNOSTIC PROCEDURE

#### DTC 10:ER01 - DIAGNOSTIC PROCEDURE

STEP	INSPECTION	ACTION
1	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes Go to the next step.
		No Repair (remove foreign material, clean) or replace the CD, and go to the next step.
2	Clear the DTC and insert a normal CD. Play the CD. Is DTC 10:Er01 displayed?	Yes Replace the CD player system MP3 operation.
		No DTC troubleshooting completed.

#### DTC 10:ER02

<b>DTC 10:Er02</b>	CD player system MP3 operation
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>• When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>• Cannot play CD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective CD (scratches or dirt)</li> <li>• CD player system MP3 operation malfunction</li> </ul>

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**Fig. 70: DTC 10:ER02 - Detection Condition & Possible Cause**  
Courtesy of MAZDA MOTORS CORP.

#### DTC 10:ER02 - INSPECTION & ACTION

STEP	INSPECTION	ACTION
1	Play the CD and change tracks. Can tracks be changed?	Yes Go to Step 3.
		No Cannot change to any track.
		Cannot change to specific tracks. Go to the next step.
		Replace the CD and try to change tracks again. <ul style="list-style-type: none"> <li>• If the function is normal, go to Step 3.</li> <li>• If the function is not normal, replace</li> </ul>

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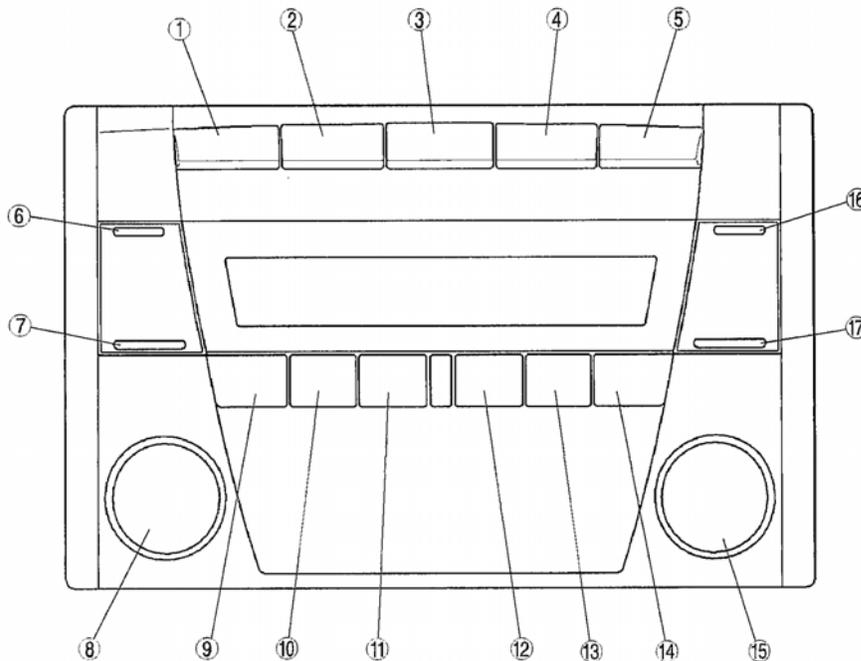
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			the CD player system MP3 operation.
2	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.
3	Clear the DTC. Play the CD and change tracks. Is DTC 10:Er02 displayed?	Yes	Replace the CD player system MP3 operation.
		No	DTC troubleshooting completed.

## DIAGNOSTIC ASSIST FUNCTION

### STRUCTURAL VIEW

#### Switch location



1	FM/AM button
2	SAT button
3	CD button
4	MD/TAPE button
5	CLOCK button
6	SEEK button (upper)
7	SEEK button (lower)
8	POWER/VOL button
9	Preset button "1"

10	Preset button "2"
11	Preset button "3"
12	Preset button "4"
13	Preset button "5"
14	Preset button "6"
15	AUDIO CONT/TUNE button
16	SCAN button
17	AUTO-M button

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**Fig. 71: Identifying Switch Location**  
 Courtesy of MAZDA MOTORS CORP.

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### LCD INSPECTION

1. With audio on, first press the POWER button and hold it, then press the SEEK button (upper) for **approximately 1 second.**
2. Inspect the LCD according to the following table:

Inspection	Display	Action	
Start LCD inspection mode.		Characters displayed in LCD are not truncated or faint.	LCD is okay.
		Other than above.	Replace base unit.

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**Fig. 72: LCD Inspection Chart**  
Courtesy of MAZDA MOTORS CORP.

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### BUTTON INSPECTION

1. With audio on, first press the POWER button and hold it, then press the CLOCK button for **approximately 1 second.**
2. Inspect the button according to the following table:

**NOTE:**

- **The button inspection mode is designed for base unit button. The following lower module button cannot be inspected in this mode. (A buzz will not sound.)**
  - **Cassette deck: DOLBY button, EJECT button**
  - **MD player: DISP button, EJECT button**

### BUTTON INSPECTION

Inspection	Display	Action	
<ul style="list-style-type: none"> <li>• Start button inspection mode.</li> <li>• Press the all buttons.</li> </ul>	-	Buzzer sound.	Button is okay.
		Buzzer dose not sound.	Replace base unit.

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### SPEAKER INSPECTION

1. With audio on, first press the POWER button and hold it, then press the AUTO-M button for **approximately 1 second.**
2. Inspect the speaker according to the following table:

### SPEAKER INSPECTION

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Inspection	Display	Action	
<ul style="list-style-type: none"> <li>• Start speaker inspection mode.</li> <li>• Does each speaker output sound in the following order?                             <ol style="list-style-type: none"> <li>1. Left front door speaker and tweeter</li> <li>2. Right front door speaker and tweeter</li> </ol> </li> </ul>	-	Yes	Speakers and wiring harness between base unit and speakers are okay.
		No	Inspect the following parts. <ul style="list-style-type: none"> <li>• Malfunctioning speaker</li> <li>• Wiring harness between base unit and malfunctioning speaker</li> </ul>

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### RADIO RECEPTION CONDITION INSPECTION

1. With audio on and at radio mode, first press the POWER button and hold it, then press the preset button "2" for **approximately 1 second**.
2. Inspect the radio reception condition according to the following table:

Inspection	Display	Action
Start radio reception condition inspection mode.	NORMAL  5 GRADUATIONS OR ABOVE	Antenna, antenna feeder, and base unit are okay.
	 3-4 GRADUATIONS	Change frequency (channel) and inspect again.
	MALFUNCTIONING  2 GRADUATIONS OR BELOW	Inspect antenna and antenna feeder. <ul style="list-style-type: none"> <li>• If either or them is not okay, replace malfunctioning part.</li> <li>• If both are okay, replace base unit.</li> </ul>

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**Fig. 73: Radio Reception Condition Inspection Chart**  
 Courtesy of MAZDA MOTORS CORP.

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### POWER ANTENNA INSPECTION

1. With audio on and at radio mode, first press the POWER button and hold it, then press the SAT button for **approximately 1 second**.
2. Inspect the power antenna according to the following table:

### POWER ANTENNA INSPECTION

Inspection	Display	Action	
	NORMAL	Speakers	System is okay.

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Start power antenna inspection mode.	<b>Ant - On</b> POWER ANTENNA OPERATING SIGNAL IS OUTPUT	output sound. Speakers do not output sound.	Inspect power antenna and wiring harness between base unit and power antenna.
	<b>MALFUNCTIONING AMP - OF</b> AUDIO AMPLIFIER OPERATING SIGNAL IS NOT OUTPUT	Replace base unit.	

- Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### AUDIO AMPLIFIER (EXTERNAL) INSPECTION

- With audio on, first press the POWER button and hold it, then press the SCAN button for **approximately 1 second**.
- Inspect the audio amplifier (external) according to the following table:

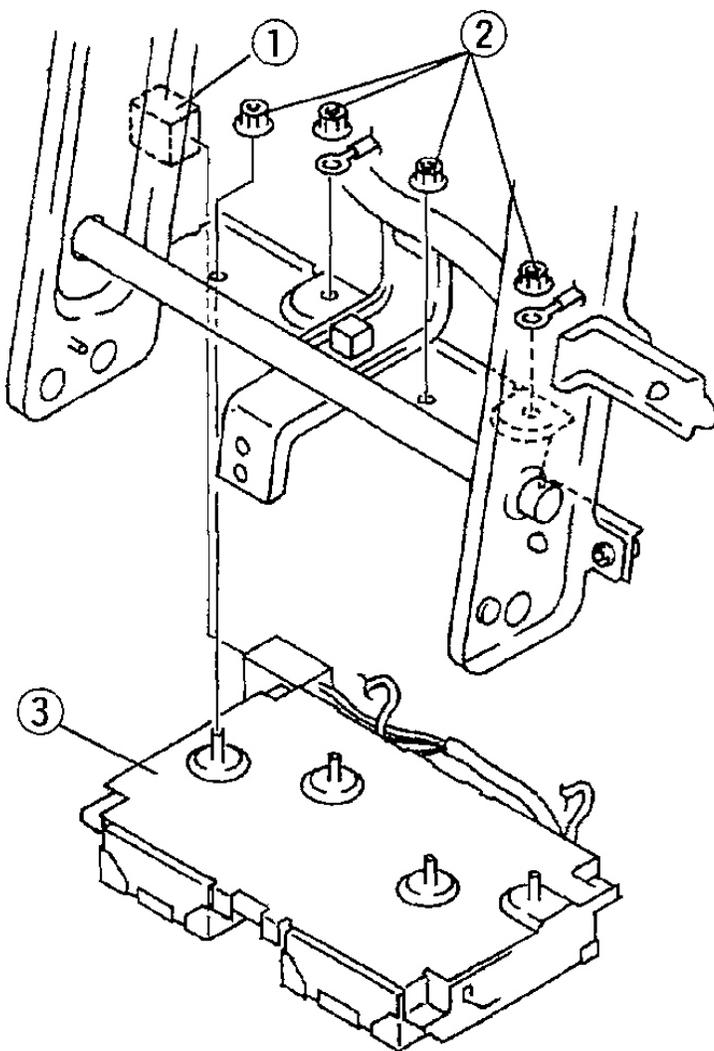
#### AUDIO AMPLIFIER INSPECTION

Inspection	Display	Action	
Start audio amplifier (external) inspection mode.	<b>NORMAL AMP - On</b> AUDIO AMPLIFIER OPERATING SIGNAL IS OUTPUT	Speakers output sound.	System is okay.
		Speakers do not output sound.	Inspect following parts. <ul style="list-style-type: none"> <li>• audio amplifier (external)</li> <li>• Speakers</li> <li>• Wiring harness (Base unit - audio amplifier (external))</li> </ul>
	<b>MALFUNCTIONING AMP - OF</b> AUDIO AMPLIFIER OPERATING SIGNAL IS NOT OUTPUT	Replace base unit.	

- Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### AUDIO AMPLIFIER REMOVAL/INSTALLATION

- Disconnect the negative battery cable.
- Remove the dashboard. (See **DASHBOARD REMOVAL/INSTALLATION** .)
- Remove in the order indicated in the table.



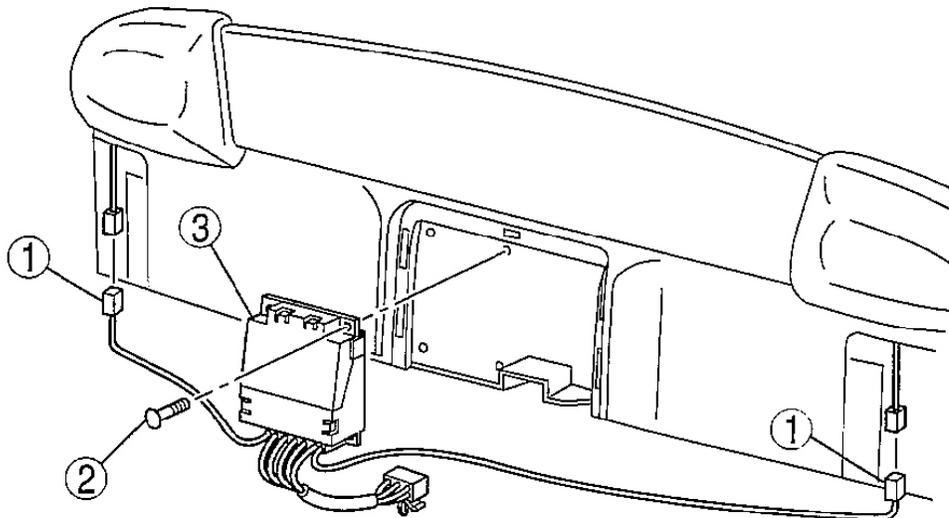
1	Audio amplifier connector
2	Nut
3	Audio amplifier

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**Fig. 74: Removing Audio Amplifier**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

1. Disconnect the negative battery cable.
2. Remove the aeroboard. (See **AEROBOARD REMOVAL/INSTALLATION** .)
3. Remove in the order indicated in the table.



1	Connector
2	Screw
3	Aeroboard speaker amplifier

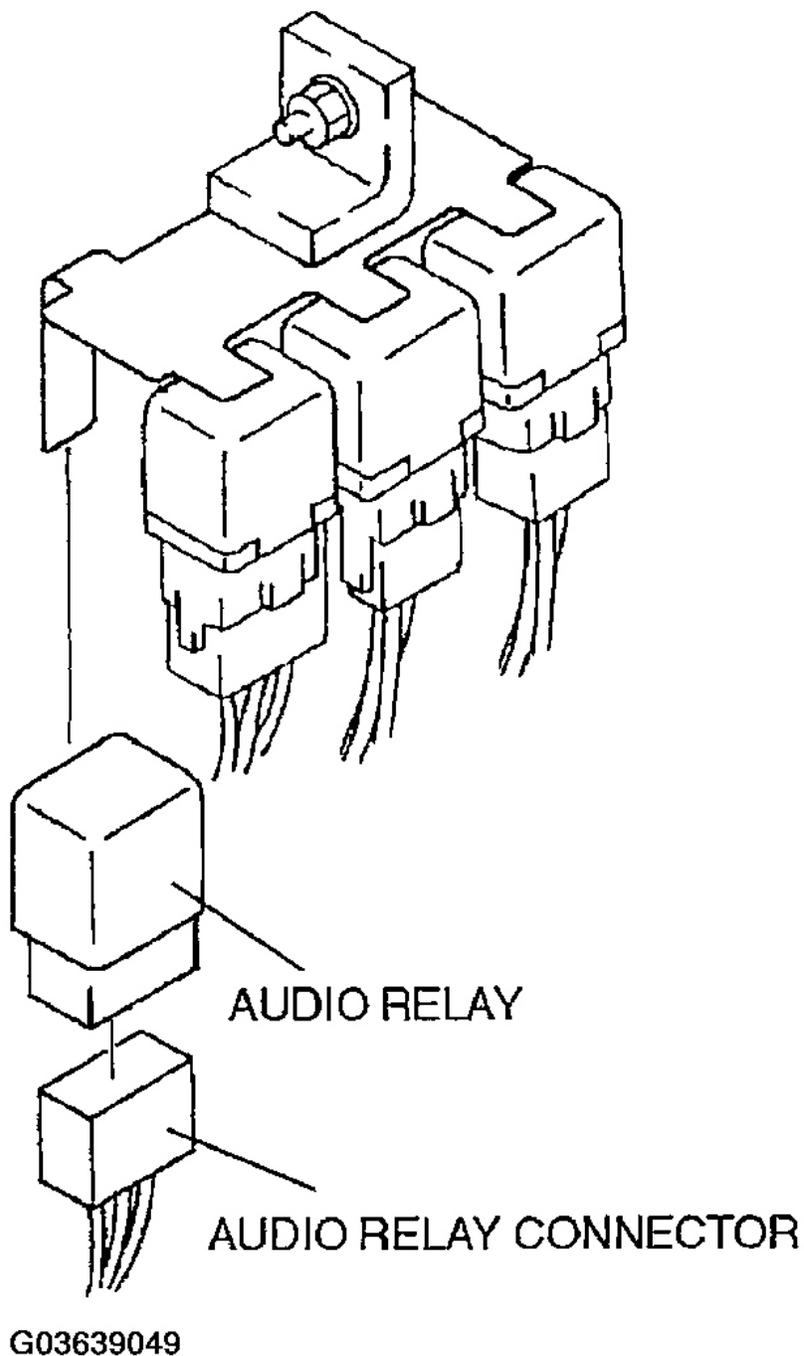
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**Fig. 75: Removing Aeroboard Speaker Amplifier**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

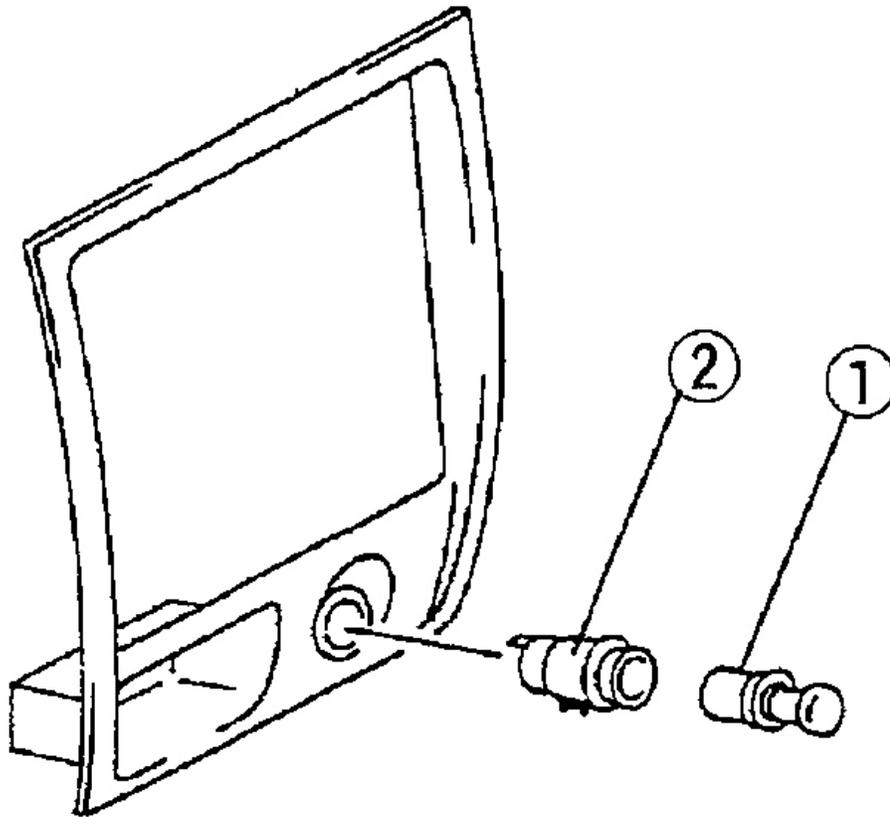
## **AUDIO RELAY REMOVAL/INSTALLATION**

1. Disconnect the negative battery cable.
2. Remove the center lower panel. (See **CENTER PANEL REMOVAL/INSTALLATION** .)
3. Disconnect the audio relay connector.
4. Remove the audio relay.
5. Install in the reverse order of removal.



**Fig. 76: Removing Audio Relay**  
Courtesy of MAZDA MOTORS CORP.

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



1	Cigarette lighter plug
2	Socket (See Socket Removal Note)

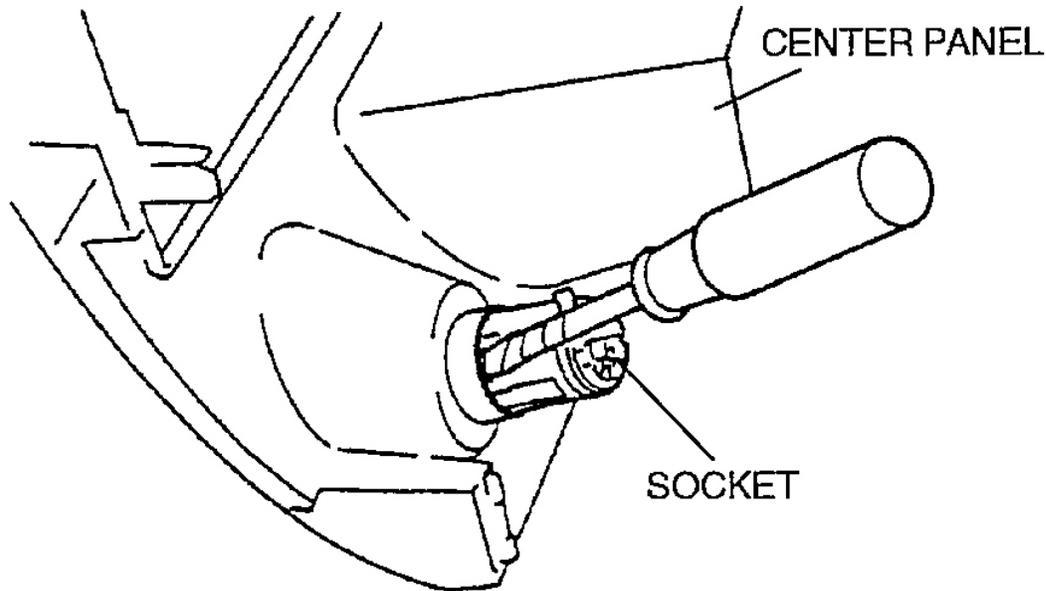
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**Fig. 77: Removing Cigarette Lighter**  
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

## SOCKET REMOVAL NOTE

1. Pry up the stopper with the tape-wrapped flathead screwdriver.
2. Pull the socket while prying up the stopper.



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**Fig. 78: Removing Socket**  
Courtesy of MAZDA MOTORS CORP.

## CIGARETTE LIGHTER INSPECTION

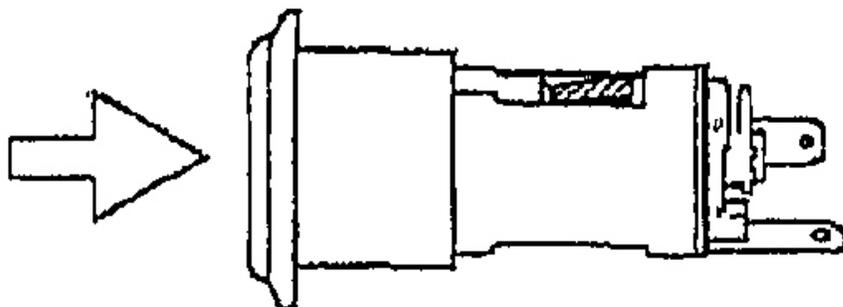
### NOTE:

- Verify that the cigarette lighter plug will move normally within 20-30 seconds , after pressing the plug into the socket.
  - If the fuse does not move, perform the following procedures.

1. Remove the socket. (See **CIGARETTE LIGHTER REMOVAL/INSTALLATION**.)
2. Verify the bimetals in the socket are not warped.
3. Inspect if the backs of the bimetals can be seen from the inside or outside.
  - If the back of the bimetal can be seen from the inside, replace the socket.
  - If the fuse has been burnt, replace the socket.
  - If the bimetal and the socket are normal, replace the cigarette lighter plug.

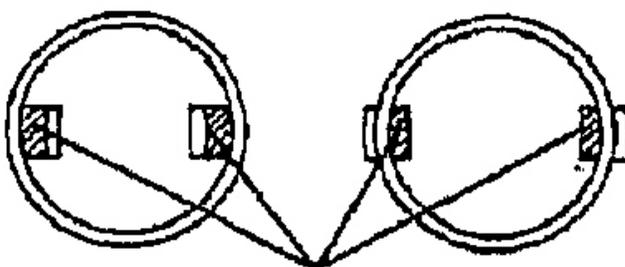
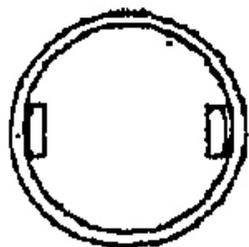
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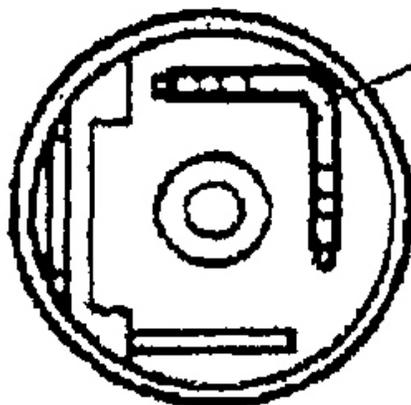
NORMAL

DEFECTIVE



BIMETAL BACK

FUSE



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**Fig. 79: Inspecting Cigarette Lighter**  
**Courtesy of MAZDA MOTORS CORP.**