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## SECTION 9F

# AUDIO SYSTEMS

**CAUTION:** Disconnect the negative battery cable before removing or installing any electrical unit or when a tool or equipment could easily come in contact with exposed electrical terminals. Disconnecting this cable will help prevent personal injury and damage to the vehicle. The ignition must also be in LOCK unless otherwise noted.

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## SPECIFICATIONS

### FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Antenna Cap Nut	5.5	-	49
Antenna Motor Nuts	4	-	35
Audio System Screws	6	-	53
Front Speaker Screws	3	-	27
Rear Speaker Screws	3	-	27

The diagram illustrates the electrical wiring for a vehicle, showing the connection of various components to a central power distribution block. The components include:

- Speakers:** Front Left, Front Right, Rear Left, and Rear Right speakers are connected to the power distribution block via various colored wires (e.g., GRN, BRN, WHT, YEL, DK BLU).
- Lighting:** An Illumination Lamp is connected to the power distribution block via a DK GRN wire. Other lights (e.g., C204, C206, C351, C361) are also connected to the block.
- Radio and Antenna:** A Cassette Radio is connected to the power distribution block via a YEL wire. A Power Antenna Motor is connected to the radio and a Controller via a BLK wire.
- Power Distribution:** The central power distribution block contains fuses (EF1, F1, F6, F9, F13) and relays (C203, C204, C205, C206, C351, C361). It is connected to the engine fuse block (EF1, 80A) and the engine fuse block (F1, 10A).
- Grounding:** Ground points G201 and G301 are shown, connected to the power distribution block and the antenna motor controller, respectively.

The diagram is labeled with various wire colors and terminal numbers, indicating the specific wiring connections for each component.

# DIAGNOSIS

## STEREO CASSETTE AM/FM RADIO

### CD Player Inoperative, AM/FM Functions OK

Step	Action	Value	Yes	No
1	Using a good-quality CD, determine if the CD player performs poorly or is inoperative. Does the CD player function correctly?	-	Go to Step 2	Go to Step 3
2	Inform the customer that the problem is with the CD, not the CD player. Has the customer been informed?	-	System OK	-
3	Check the CD player for obstructions behind the tape door. Is an obstruction found?	-	Go to Step 4	Go to Step 6
4	Check to see if the obstruction can be removed. Can the obstruction be removed?	-	Go to Step 5	Go to Step 6
5	Remove the obstruction. Is the repair complete?	-	System OK	-
6	Replace the CD player. Is the repair complete?	-	System OK	-

### AM/FM Cassette Radio Inoperative

Step	Action	Value(s)	Yes	No
1	Check fuses F6 and F9. Are fuses F6 and F9 blown?	-	Go to Step 2	Go to Step 3
2	1. Check for a short circuit and repair if necessary. 2. Replace the blown fuses. Is the repair complete?	-	System OK	-
3	1. Use a voltmeter to test for battery voltage at fuse F1. 2. Turn the ignition ON and test for battery voltage at fuse F9. Does the battery voltage match the specified value at fuses F6 and F9?	11-14 v	Go to Step 5	Go to Step 4
4	Repair the power supply circuit to the fuses. Is the repair complete?	-	System OK	-
5	1. Remove the cassette radio. 2. Turn the ignition ON. 3. Use a voltmeter to test for battery voltage at the audio system connector terminals 4 and 5. Does the battery voltage match the specified value at both terminals?	11-14 v	Go to Step 7	Go to Step 6
6	Repair the open circuit between the audio system connector and the fuse. Is the repair complete?	-	System OK	-
7	Use an ohmmeter to test the ground circuit at the audio system connector terminal 14. Does the resistance match the specified value?	[ 0 W	Go to Step 9	Go to Step 8

**AM/FM Cassette Radio Inoperative (Cont'd)**

Step	Action	Value(s)	Yes	No
8	Repair the open ground circuit between the audio system connector and ground G201. Is the repair complete?	-	System OK	-
9	Replace the cassette radio. Is the repair complete?	-	System OK	-

**Cassette Player Inoperative, AM/FM Functions OK**

Step	Action	Value(s)	Yes	No
1	Verify the customer complaint. Does the cassette player destroy tapes?	-	Go to Step 5	Go to Step 2
2	Using a good-quality tape, determine whether the cassette player performs poorly or is inoperative. Does the cassette player perform poorly?	-	Go to Step 5	Go to Step 3
3	Check the cassette player for obstructions behind the tape door. Is an obstruction found?	-	Go to Step 4	Go to Step 8
4	Check to see if the obstruction can be removed using gentle force. Is the obstruction removed?	-	Go to Step 5	Go to Step 6
5	Clean the cassette player head, the capstan, and the drive system. Does the tape play properly?	-	Go to Step 7	Go to Step 6
6	Replace the cassette radio. Is the repair complete?	-	System OK	-
7	Check the cassette player for normal operation. Is the repair complete?	-	System OK	-
8	Advise the owner of a defective or worn tape. Is the repair complete?	-	System OK	-

**FM Does Not Work, AM and Cassette OK**

Step	Action	Value(s)	Yes	No
1	Check the audio system for normal operation. Is FM inoperative and the rest of the system operating properly?	-	Go to Step 2	System OK
2	Replace the radio. Is the repair complete?	-	System OK	-

**AM Radio Does Not Work, FM and Cassette OK**

Step	Action	Value(s)	Yes	No
1	1. Unplug the antenna cable from the antenna. 2. Connect the test antenna to the antenna cable. 3. Check the AM radio reception. Is the AM radio operating properly?	-	Go to Step 2	Go to Step 3
2	Replace the antenna. Is the repair complete?	-	System OK	-
3	1. Remove the cassette radio from the instrument panel. 2. Unplug the antenna cable from the audio system. 3. Plug the test cable into the audio system. 4. Check the AM radio reception. Is the AM radio operating properly?	-	Go to Step 4	Go to Step 5
4	Replace the antenna cable between the audio system and the antenna. Is the repair complete?	-	System OK	-
5	Replace the cassette radio. Is the repair complete?	-	System OK	-

**SPEAKERS****Front Speakers Distorted or Inoperative, Rest of Audio System OK**

Step	Action	Value(s)	Yes	No
1	1. Turn the ignition and the radio ON. 2. Check for distorted or inoperative front speakers using the fader and the balance controls with all of the sources (AM, FM, tape, CD). Are the front speakers distorted?	-	Go to Step 2	Go to Step 4
2	Check the speaker and the door area for damage, rattles, or vibration. Is there anything loose or in the way of the speaker causing the distortion?	-	Go to Step 3	Go to Step 4
3	Make the necessary repairs to secure the component causing the distortion. Is the repair complete?	-	System OK	-
4	1. Remove the front speakers and disconnect the speaker connector. 2. Using an ohmmeter, test the speaker wires for a short to ground. Does the ohmmeter show the specified value?	R	Go to Step 6	Go to Step 5
5	Repair the short circuit between the front speaker connector and the radio connector. Is the repair complete?	-	System OK	-
6	Substitute a known good speaker for the speaker causing the distortion. Is the distortion eliminated?	-	Go to Step 7	Go to Step 8
7	Replace the speaker. Is the repair complete?	-	System OK	-
8	Replace the cassette radio. Is the repair complete?	-	System OK	-

**Rear Speakers Distorted or Inoperative, Rest of Audio System OK**

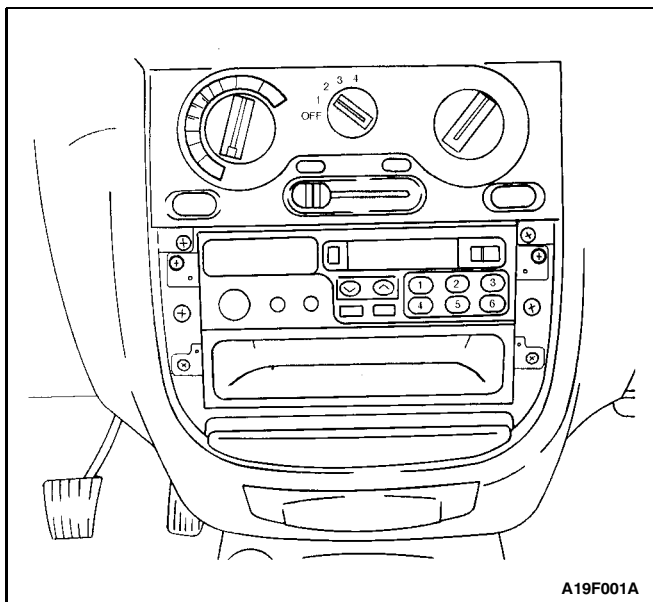
Step	Action	Value(s)	Yes	No
1	1. Turn the ignition and the radio on. 2. Check for distorted or inoperative rear speakers using the fader and the balance controls with all the of the sources (AM, FM, tape, CD). Are the rear speakers distorted?	-	Go to Step 2	Go to Step 4
2	Check the speakers, the rear deck, and the trunk area for damage, rattles, or vibration. Is there anything loose or in the way of the speaker causing the distortion?	-	Go to Step 3	Go to Step 4
3	Make the necessary repairs to secure the component causing the distortion. Is the repair complete?	-	System OK	-
4	1. Disconnect the rear speakers. 2. Using an ohmmeter, test the speaker wires for a short to ground. Does the ohmmeter show the specified value?	R	Go to Step 6	Go to Step 5
5	Repair the short circuit between the rear speaker connector and the radio connector. Is the repair complete?	-	System OK	-
6	Substitute a known good speaker for the speaker causing the distortion. Is the distortion eliminated?	-	Go to Step 7	Go to Step 8
7	Replace the speaker. Is the repair complete?	-	System OK	-
8	Replace the audio system. Is the repair complete?	-	System OK	-

**ANTENNA**
**Power Antenna Does Not Work**

Step	Action	Value(s)	Yes	No
1	Check fuse F1. Is fuse F1 blown?	-	Go to Step 2	Go to Step 3
2	1. Check for a short circuit and repair if necessary. 2. Replace the blown fuse. Is the repair complete?	-	System OK	-
3	Use a voltmeter to test for battery voltage at fuse F1. Does the battery voltage match the specified value?	11-14 v	Go to Step 5	Go to Step 4
4	Repair the open power supply circuit to fuse F1. Is the repair complete?	-	System OK	-
5	Use a voltmeter to test for battery voltage at power antenna connector terminal 1. Does the battery voltage match the specified value?	11-14 v	Go to Step 7	Go to Step 6
6	Repair the open circuit between the power antenna connector terminal 1 and fuse F1. Is the repair complete?	-	System OK	-

**Power Antenna Does Not Work (Cont'd)**

Step	Action	Value(s)	Yes	No
7	Use an ohmmeter to test the ground circuit at the power antenna connector terminal 2. Does the resistance match the specified value?	[ 0 W	Go to Step 9	Go to Step 8
8	Repair the open ground circuit between the power antenna connector terminal 2 and ground G301. Is the repair complete?	-	System OK	-
9	1. Turn the ignition ON. 2. Turn the radio ON. 3. Use a voltmeter to test for battery voltage at the power antenna connector terminal 3. Does the battery voltage match the specified value?	11-14 v	Go to Step 10	Go to Step 11
10	Replace the power antenna motor assembly. Is the repair complete?	-	System OK	-
11	1. Turn the ignition ON. 2. Turn the radio ON. 3. Use a voltmeter to test for battery voltage at radio terminal 12. Does the battery voltage match the specified value?	11-14 v	Go to Step 12	Go to Step 13
12	Repair the open circuit between the radio connector and the power antenna connector terminal 3. Is the repair complete?	-	System OK	-
13	Replace the cassette radio. Is the repair complete?	-	System OK	-



## MAINTENANCE AND REPAIR

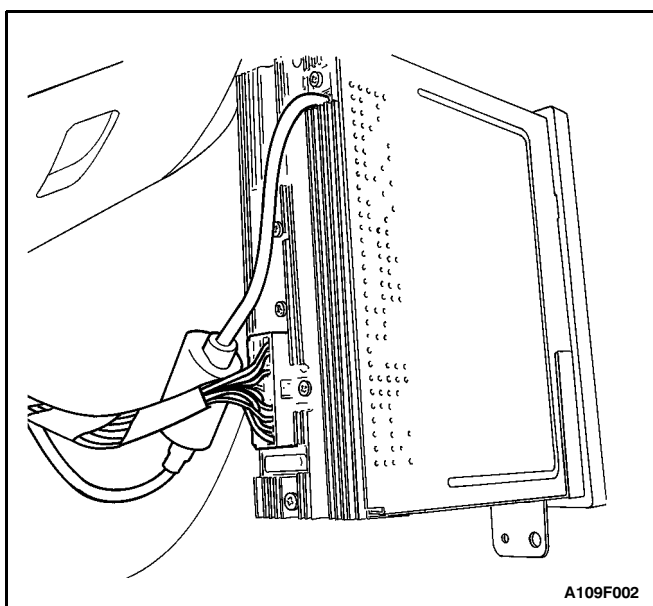
### ON-VEHICLE SERVICE

#### AUDIO SYSTEM

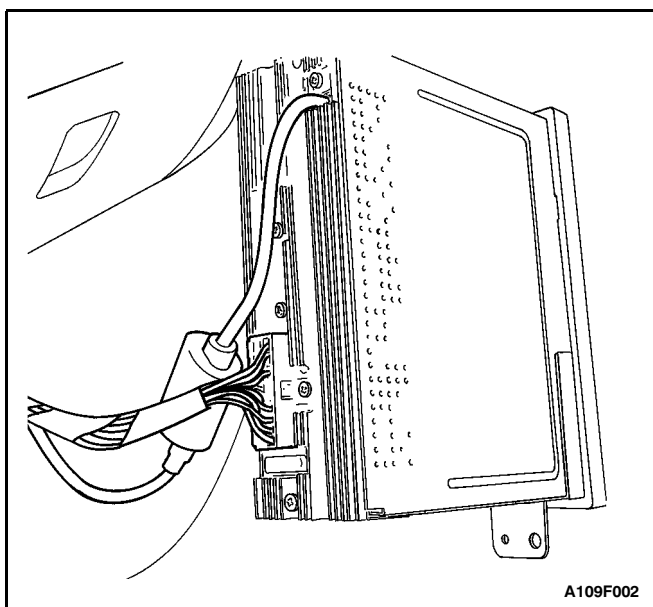
(Left-Hand Drive Shown, Right-Hand Drive Similar)

##### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the audio system trim plate.
3. Remove the screws and the audio system.



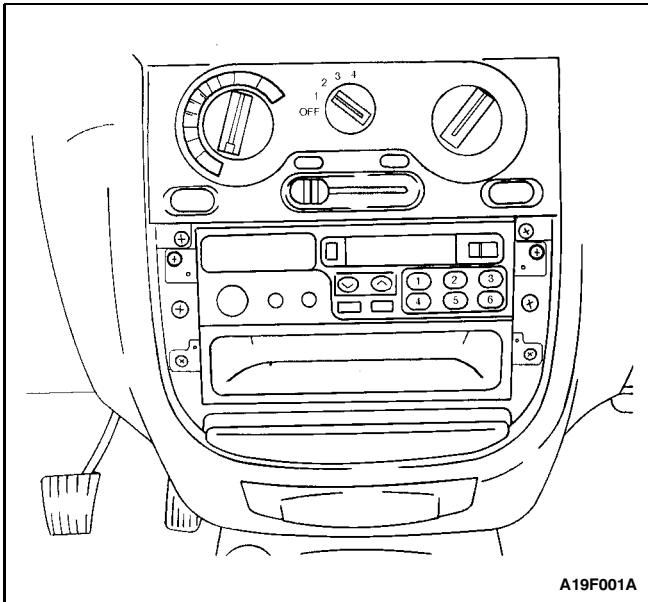
4. Disconnect the audio system electrical connector and the antenna cable.



##### Installation Procedure

1. Connect the audio system electrical connector and the antenna cable.





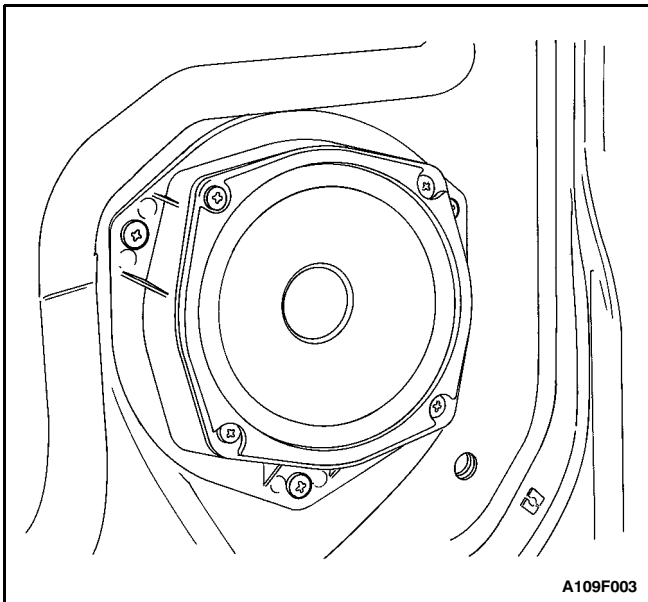
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2. Install the audio system with the screws.

### Tighten

Tighten the audio system screws to 6 N·m (53 lb-in).

3. Install the audio system trim plate.
4. Connect the negative battery cable.
5. Enter the audio security system four-digit code. Refer to "Audio Security System" in this section.

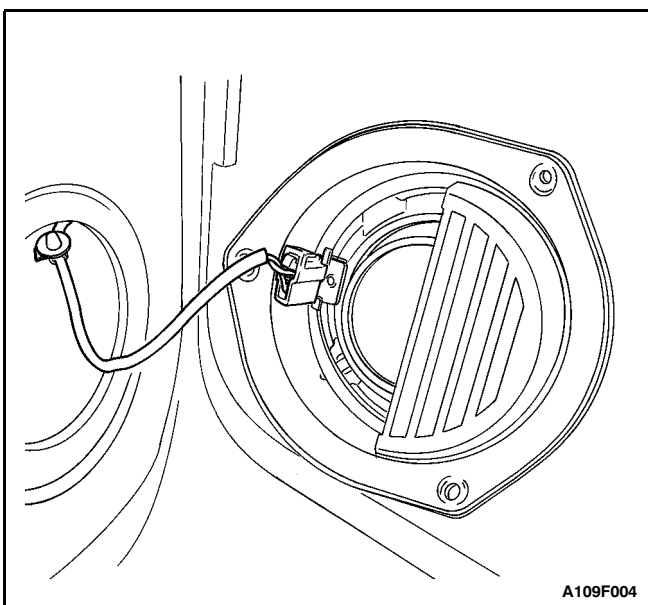


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## FRONT SPEAKERS

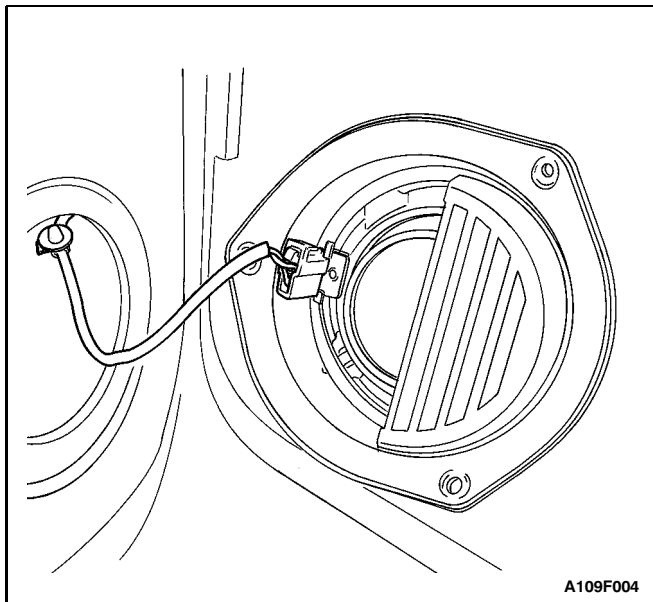
### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the front door trim panel. Refer to Section 9G, Interior Trim.
3. Remove the screws and the front speaker.



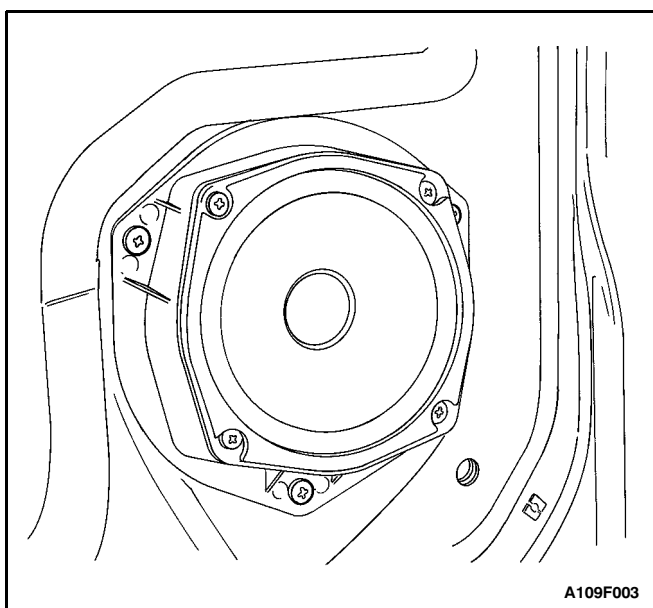
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4. Disconnect the electrical connector.



### Installation Procedure

1. Connect the electrical connector.

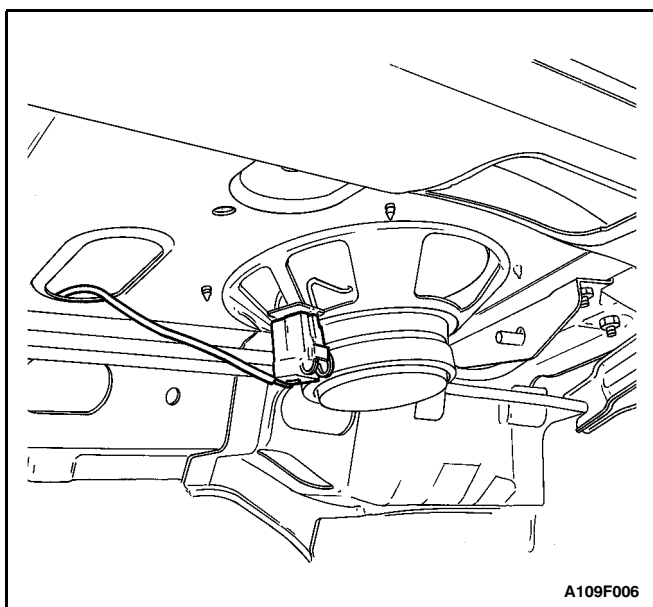


2. Install the front speaker with the screws.

#### Tighten

Tighten the front speaker screws to 3 N•m (27 lb-in).

3. Install the front door trim panel. Refer to Section 9G, Interior Trim.
4. Connect the negative battery cable.

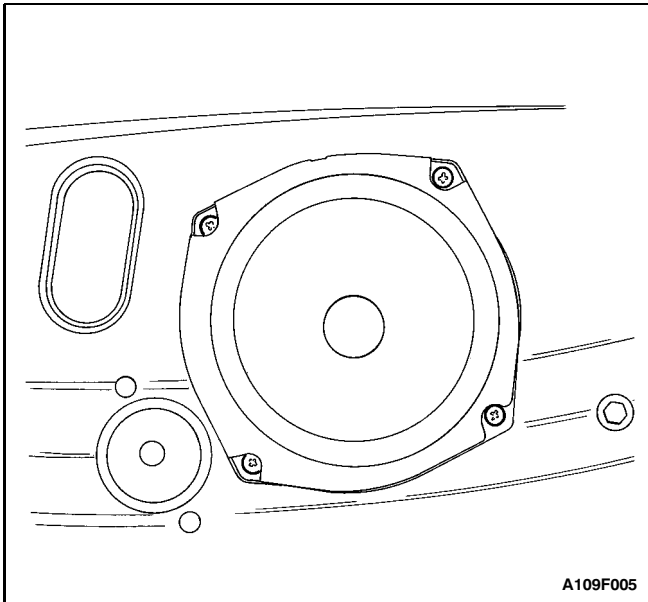


### REAR SPEAKERS (NOTCHBACK)

#### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the deck lid sill plate trim cover. Refer to Section 9G, Interior Trim.
3. Disconnect the electrical connector.

4. Remove the screws and the rear speakers.

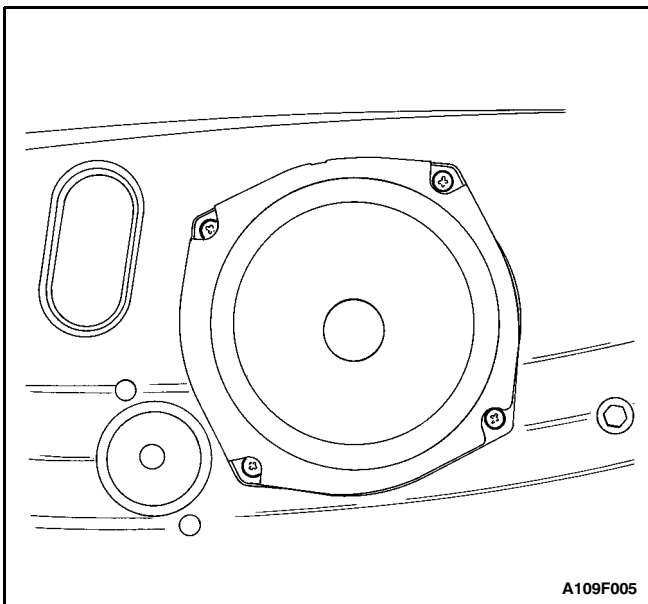


### Installation Procedure

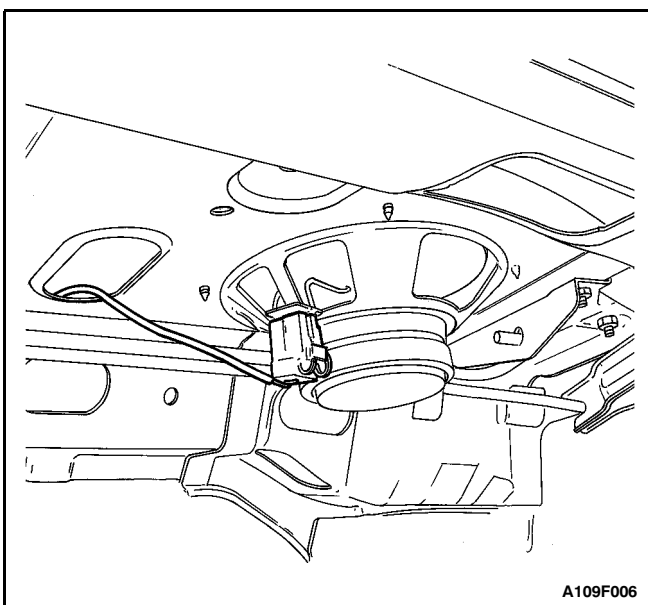
1. Install the rear speakers with the screws.

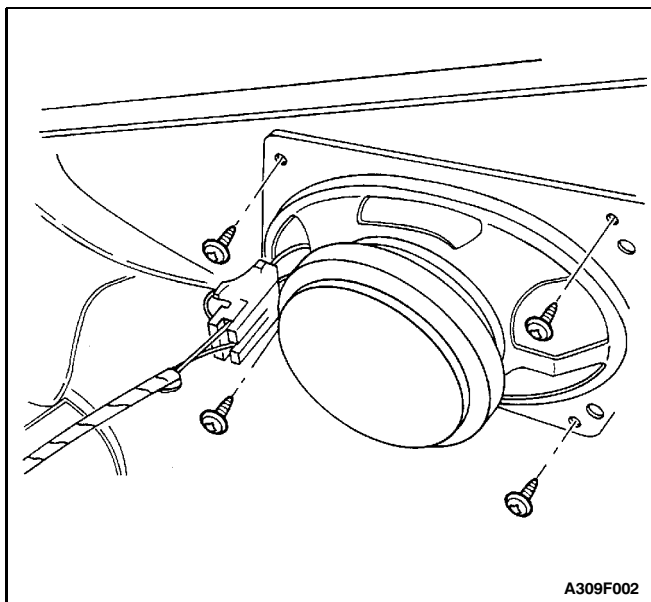
#### Tighten

Tighten the rear speaker screws to 3 N•m (27 lb-in).



2. Connect the electrical connector.
3. Install the rear seatback and the rear seat cushion.  
Refer to Section 9H, Seats.
4. Connect the negative battery cable.



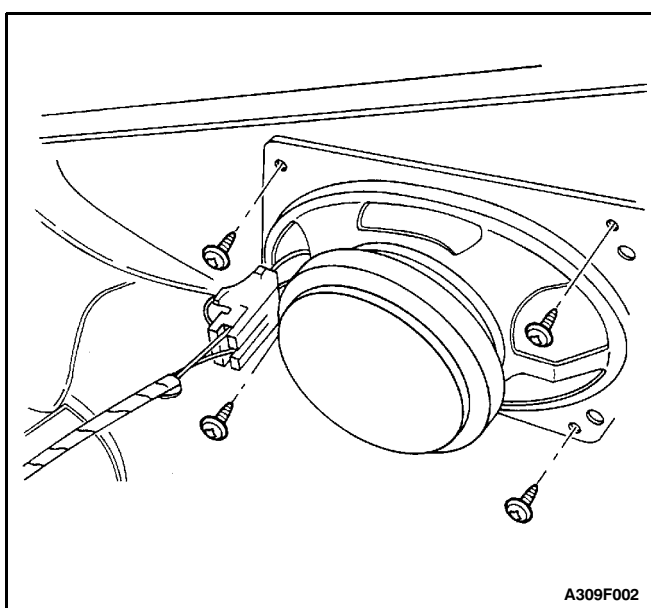


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## REAR SPEAKERS (HATCHBACK)

### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the luggage compartment wheelhouse trim panel (hatchback). Refer to Section 9G, Interior Trim.
3. Disconnect the electrical connector.
4. Remove the screws and the rear speaker.



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### Installation Procedure

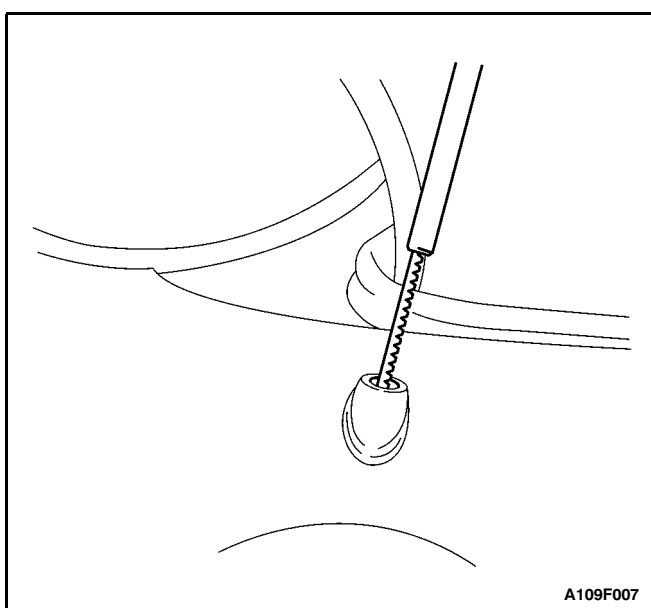
**Notice:** Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.

1. Install the rear speaker with the screws.

#### Tighten

Tighten the rear speaker screws to 3 N•m (27 lb-in).

2. Connect the electrical connector.
3. Install the luggage compartment wheelhouse trim panel (hatchback). Refer to Section 9G, Interior Trim.
4. Connect the negative battery cable.

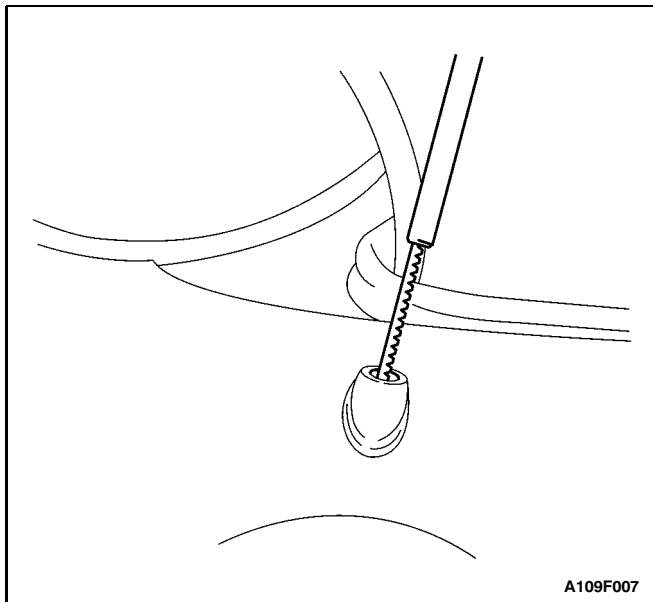


A109F007

## POWER ANTENNA MAST

### Removal Procedure

1. Remove the luggage compartment rear quarter trim panel. Refer to Section 9G, Interior Trim.
2. Remove the antenna cap nut.
3. Turn on the radio and remove the antenna mast and cable.



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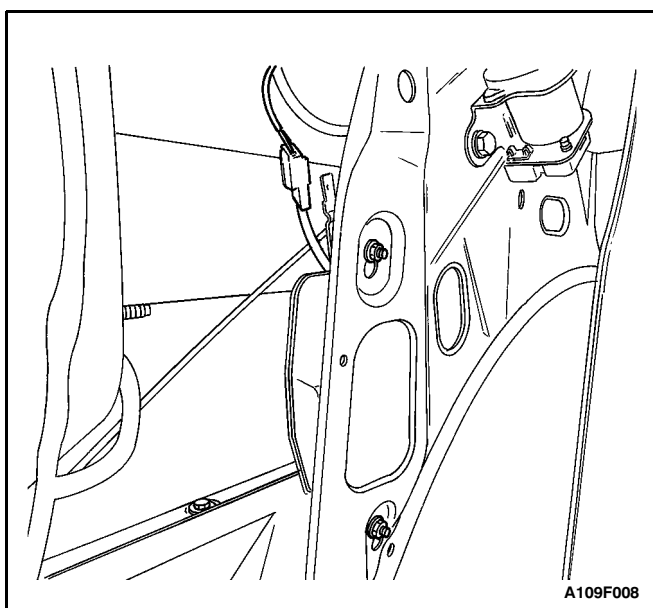
### Installation Procedure

1. Install the antenna mast with the teeth of the cable facing the rear of the vehicle.
2. Turn off the radio.
3. Install the antenna cap nut.

### Tighten

Tighten the antenna cap nut to 5.5 N•m (49 lb-in).

4. Install the luggage compartment rear quarter trim panel. Refer to Section 9G, Interior Trim.



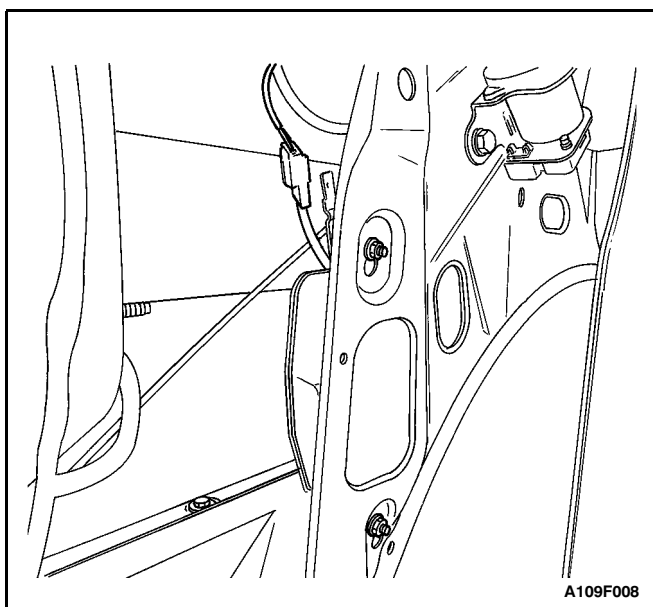
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## POWER ANTENNA MOTOR/MANUAL ANTENNA

(Hatchback Shown, Notchback Similar)

### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the luggage compartment rear quarter trim panel. Refer to Section 9G, Interior Trim.
3. Remove the antenna cap nut.
4. Loosen the nuts securing the antenna motor to the vehicle. (Power antenna shown, manual antenna similar).
5. Remove the antenna motor, if equipped.
6. Disconnect the electrical connectors, if equipped.



A109F008

### Installation Procedure

1. Connect the electrical connectors, if equipped.
2. Install the antenna motor with the nuts. (Power antenna shown, manual antenna similar.)

### Tighten

Tighten the antenna motor nuts to 4 N•m (35 lb-in).

3. Install the luggage compartment rear quarter trim panel. Refer to Section 9G, Interior Trim.
4. Install the antenna cap nut.

### Tighten

Tighten the antenna cap nut to 5.5 N•m (49 lb-in).

5. Connect the negative battery cable.

## GENERAL DESCRIPTION AND SYSTEM OPERATION

### STEREO CASSETTE AM/FM RADIO

The stereo cassette AM/FM radio and the compact disc player are offered as optional equipment. All audio systems use four speakers: two speakers mounted in the front doors and two speakers mounted in the rear deck lid sill plate.

### AUDIO SECURITY SYSTEM

The audio security system is activated whenever the audio system circuit is disconnected from the battery. A four-digit security code must be entered in order for the audio system to resume functioning. The security code is stamped on a card located in the vehicle (usually in the glove box). The following security code entering procedure can be used to activate this audio security system:

1. With the ignition switch in the ACC or on position, turn the radio on. At this time, "CODE" will be shown on the radio display, accompanied by chime sounds.
2. Enter the four-digit security number using the radio preset buttons 1 through 6, (or 1 through 8 if equipped).
3. After all four digits are entered, the digits will blink three times, and the radio will be functional.

#### Wrong Code:

If the wrong code is entered, "ERR" will briefly appear on the display. After this "CODE" will appear, and the code entering procedure can be performed once again. If the correct code is not entered within 10 minutes, the radio should be disconnected from the battery to reset the audio system. After connecting the battery, repeat the code entering procedure.

### FRONT AND REAR SPEAKERS

All audio systems use four speakers: two speakers mounted in the front doors and two speakers mounted in the rear deck lid sill plate, on the notchback. On the hatchback, the rear speakers are mounted behind the

luggage compartment wheelhouse trim panel. A coaxial two-way rear speaker is offered as an option.

### MANUAL ANTENNA

The manual antenna is designed to withstand most car washes without damage. The antenna can be adjusted up or down by hand. If the mast becomes slightly bent, you can straighten it by hand. The manual antenna can be replaced if it is severely bent. Manual antennas must be kept clean for good performance.

### POWER ANTENNA

The power antenna is controlled by the radio. When the radio power is turned on, the antenna is extended. When the radio is turned off, either by turning the power off or by turning the ignition switch off, the antenna is retracted.

### TAPE PLAYER AND CASSETTE CARE

The head and the capstan are the two parts of the tape player that should be cleaned. This service should be performed every 100 hours of cassette operation.

In order to clean the head and the capstan, use a cotton swab dipped in rubbing alcohol.

A cassette cleaning kit may also be used to clean the head and the capstan. Follow the cleaning kit instructions to clean the tape player.

Do not touch the tape head with magnetized tools. If the head becomes magnetized, it will degrade cassettes played in the player. No service is performed on the cassettes. The cassette manufacturer handles warranties of the cassettes. Store cassettes away from extreme heat and direct sunlight.

### COMPACT DISC CARE

Handle discs carefully. Store the discs in protective cases away from the sun, heat, and dust. If the surface is soiled, dampen a clean, soft cloth in a solution of mild neutral detergent and wipe the disc clean. Mini discs (about 3 inches in diameter), will not eject and should not be used.