

# SECTION 9R

## BODY FRONT END

### TABLE OF CONTENTS

Specifications .....	9R-1	Hood Hinges .....	9R-5
Fastener Tightening Specifications .....	9R-1	Hood Prop Rod .....	9R-5
Maintenance and Repair .....	9R-2	Hood Secondary Latch .....	9R-6
On-Vehicle Service .....	9R-2	Hood Latch Release Cable .....	9R-7
Lubrication .....	9R-2	Radiator Grille .....	9R-9
Fasteners .....	9R-2	Fender .....	9R-10
Anticorrosion Materials .....	9R-2	General Description and System	
Front End Sealing .....	9R-2	Operation .....	9R-14
Cowl Vent Grille .....	9R-3	Body Front End .....	9R-14
Hood .....	9R-4		

## SPECIFICATIONS

### FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb-Ft	Lb-In
Fender-to-A-Pillar Bolt	8	-	71
Cowl Vent Grille Screws	2	-	18
Fender Screws (Rear of Fascia)	4	-	35
Front Bumper Fascia-to-Fender Screw	1.5	-	13
Hinge Bolts	20	15	-
Hood-to-Hinge Bolts	20	15	-
Hood Latch Screws	8	-	71
Hood Release Handle Screws	1.5	-	13
Lower Fender Bolts	8	-	71
Radiator Grille Nuts	2	-	18
Splash Shield Screws	1.5	-	13
Upper Fender Bolts	8	-	71

## MAINTENANCE AND REPAIR

### ON-VEHICLE SERVICE

#### LUBRICATION

The hood hinges and the locking mechanisms require periodic lubrication for proper operation. Refer to Section 0B, General Information for the specific types and intervals of lubrication.

#### FASTENERS

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

Many aluminum components are used on current models. Aluminum in contact with steel may corrode rapidly if it is not protected by special finishes or isolators.

The fasteners used have a special finish which provides adequate protection from corrosion. These special fasteners differ in color in order to easily identify them from the standard metric fasteners, which are medium blue in color.

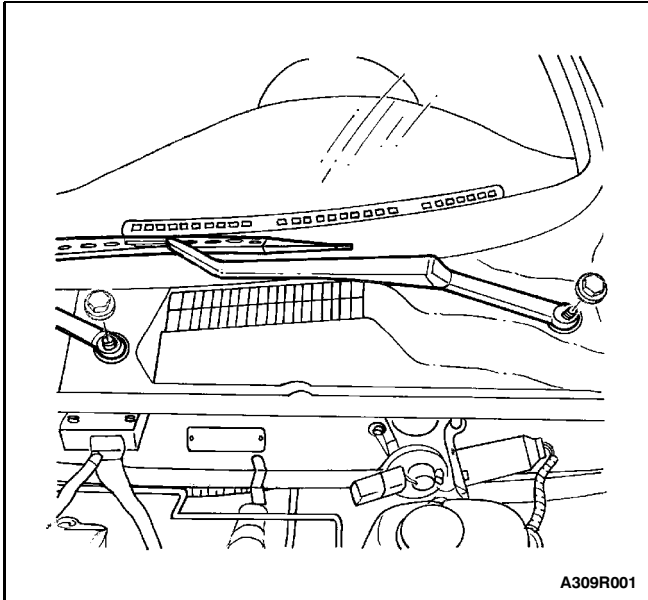
When replacing fasteners, avoid substituting otherwise similar fasteners in the same location.

#### ANTICORROSION MATERIALS

In order to provide rust resistance, anticorrosion materials have been applied to the interior surfaces of most of the metal panels. When you service these panels, properly re-coat them with a service-type anticorrosion material if any of the original material has been disturbed.

#### FRONT END SEALING

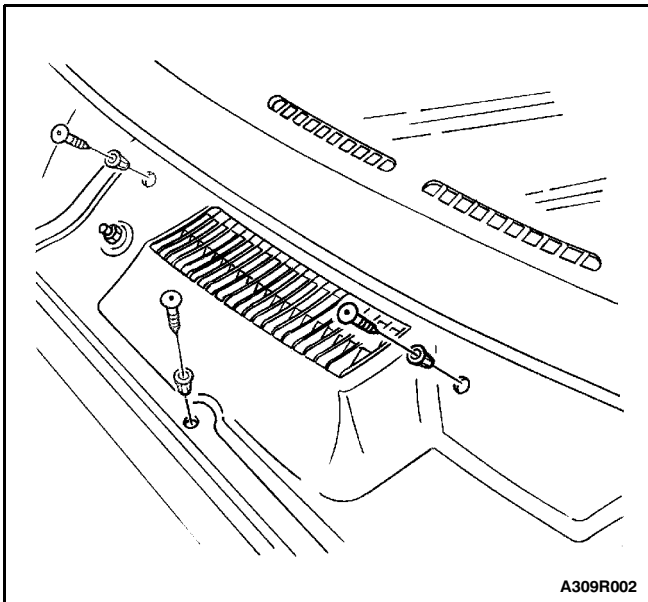
All locations where waterleaks may occur are sealed during production with high quality, durable sealers. If it becomes necessary to reseal specific areas, use a high quality sealer of medium-bodied consistency which will retain its flexible characteristics after curing and can be painted if necessary.



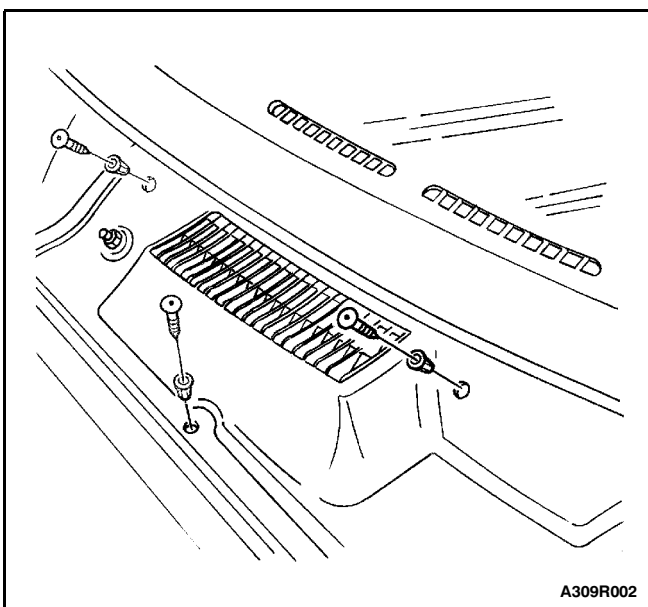
## COWL VENT GRILLE

### Removal Procedure

1. Raise the hood and support it with the hood prop.
2. Remove the nuts and the wiper arms.



3. Remove the cowl vent grille screws and the two-piece grille.



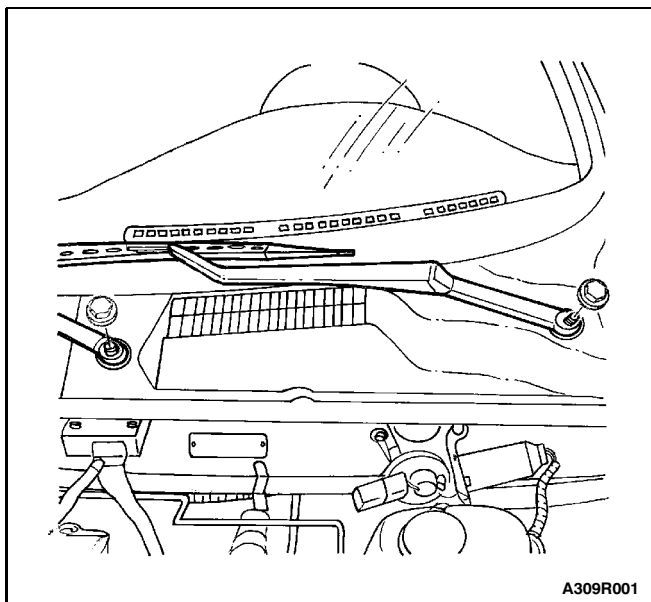
### Installation Procedure

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

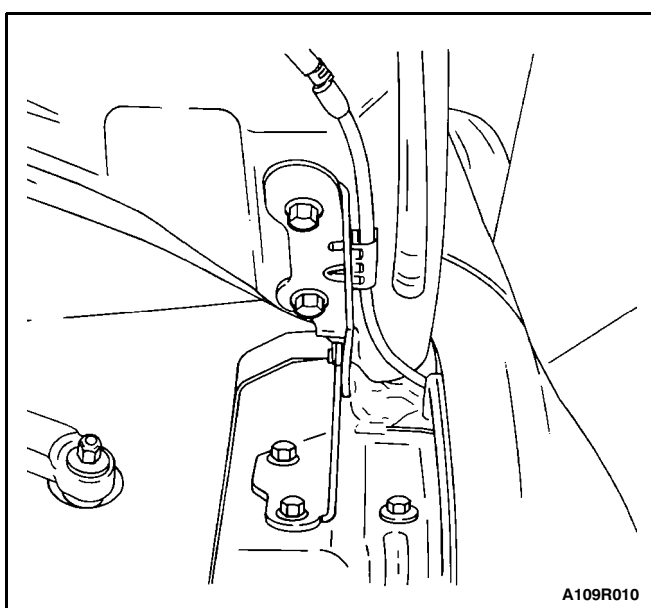
1. Install the two-piece grille and the cowl vent grille screws.

### Tighten

Tighten the cowl vent grille screws to 2 N•m (18 lb-in).



2. Install the nuts and the wiper arms.

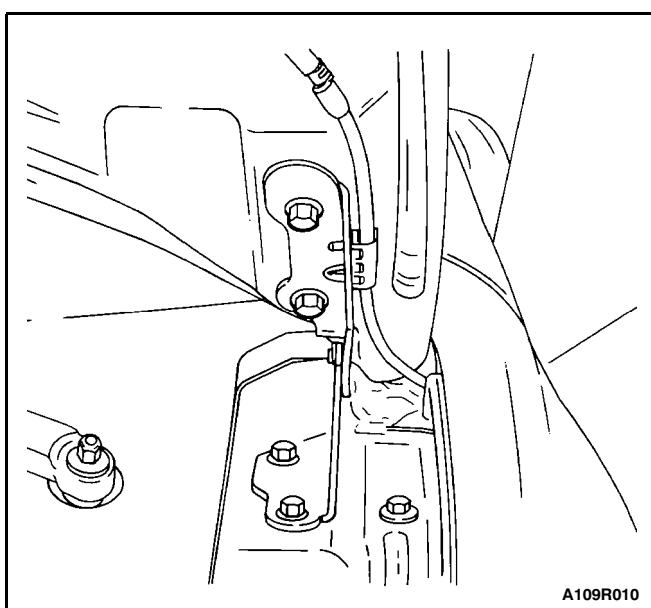


## HOOD

### Removal Procedure

**Important:** Install protective coverings over the fenders and the windshield in order to prevent damage to the paint, the glass and the moldings when you are removing and installing the hood.

1. Raise and support the hood.
2. Mark the position of the hinge to the hood in order to aid in alignment during installation.
3. Remove the bolts retaining the hood to both hinges.
4. With the aid of another technician, remove the hood from the hinges.



### Installation Procedure

1. With the aid of another technician, position the hood in the location marked during removal.

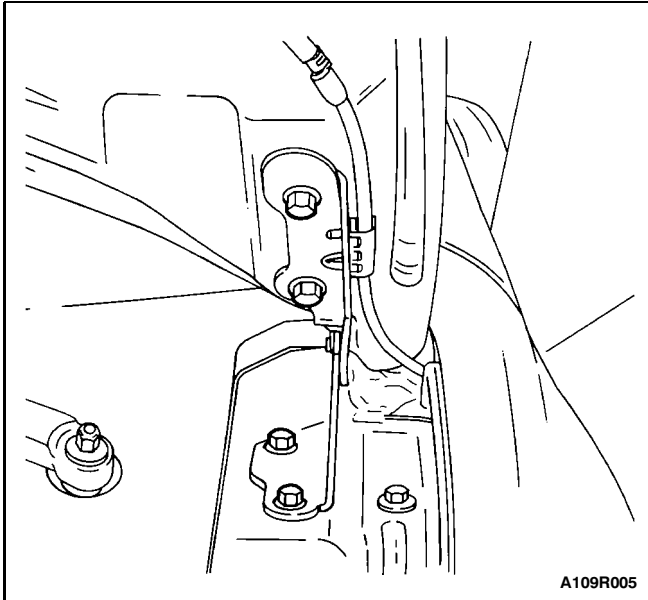
**Notice:** Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.

2. Install the two bolts securing the hood to each hinge.

### Tighten

Tighten the hood-to-hinge bolts to 20 N•m (15 lb-ft).

3. Inspect the hood for proper alignment.

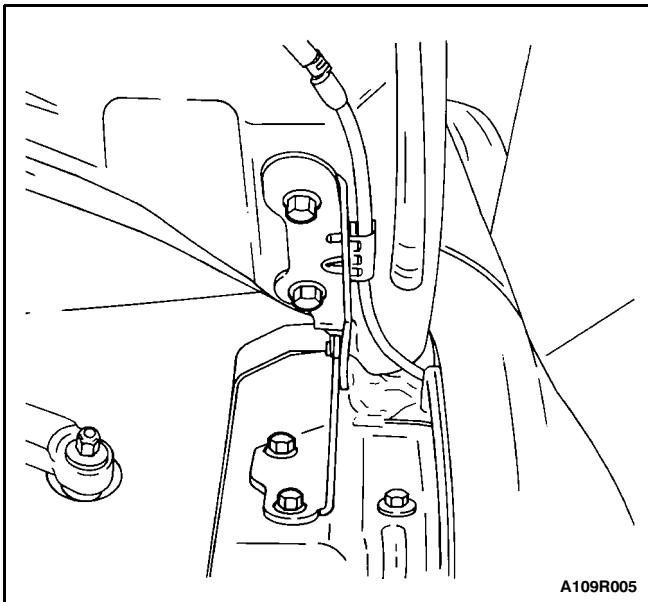


A109R005

## HOOD HINGES

### Removal Procedure

1. Remove the hood. Refer to "Hood" in this section.
2. Remove the bolts and the hinge.



A109R005

### Installation Procedure

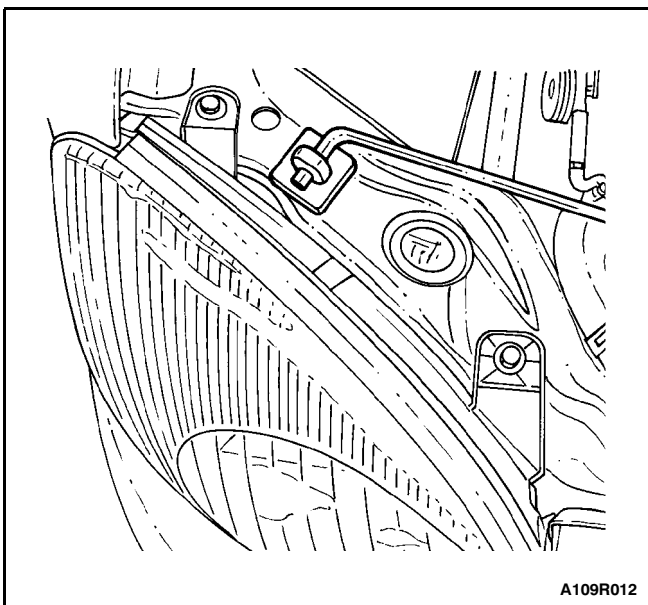
**Notice:** Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.

1. Install the hinge with the bolts.

#### Tighten

Tighten the hinge bolts to 20 N•m (15 lb-ft).

2. Install the hood. Refer to "Hood" in this section.

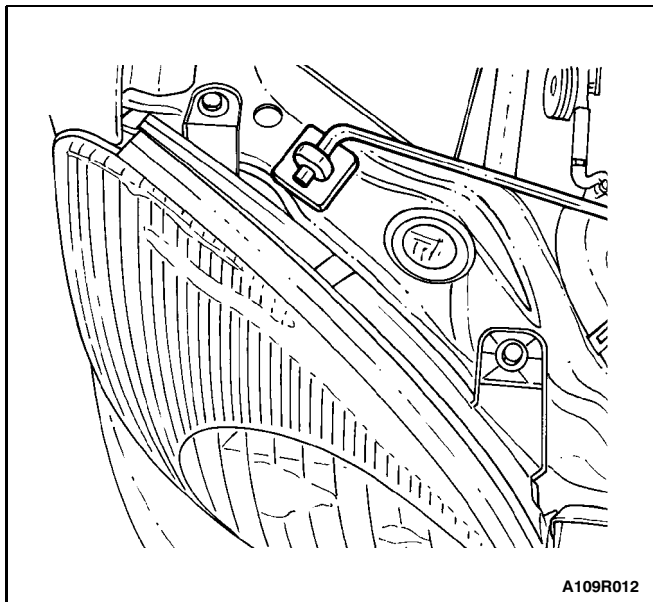


A109R012

## HOOD PROP ROD

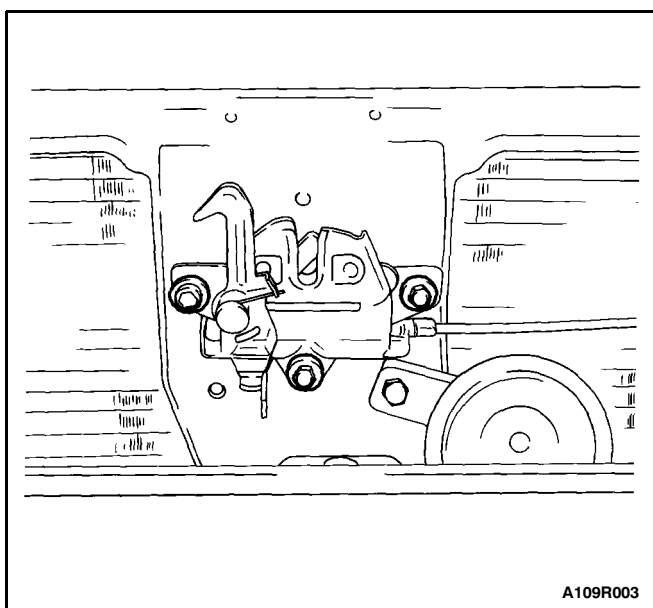
### Removal Procedure

1. Support the hood in the open position.
2. Remove the hood prop rod by gently prying the base from the radiator support.



### Installation Procedure

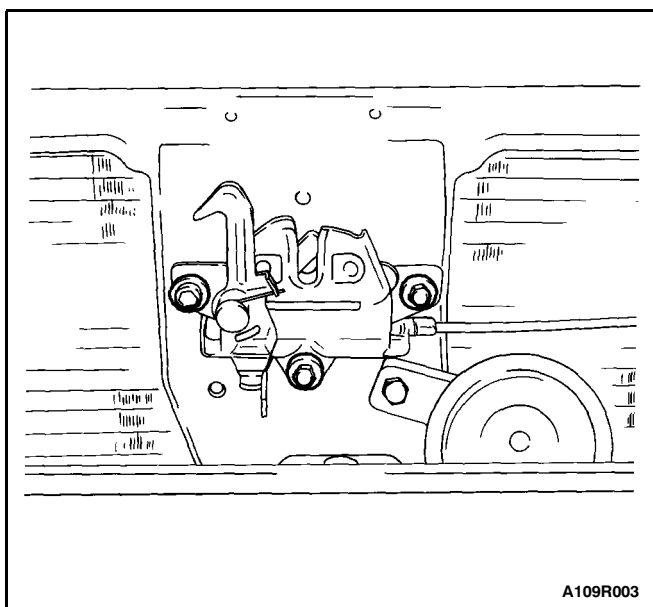
1. Install the hood prop rod by snapping the base back into the radiator support.



### HOOD SECONDARY LATCH

#### Removal Procedure

1. Open the hood.
2. Remove the screws and the hood latch.
3. Disconnect the hood release cable.



#### Installation Procedure

1. Connect the hood release cable to the latch.

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

2. Install the hood latch with the screws.

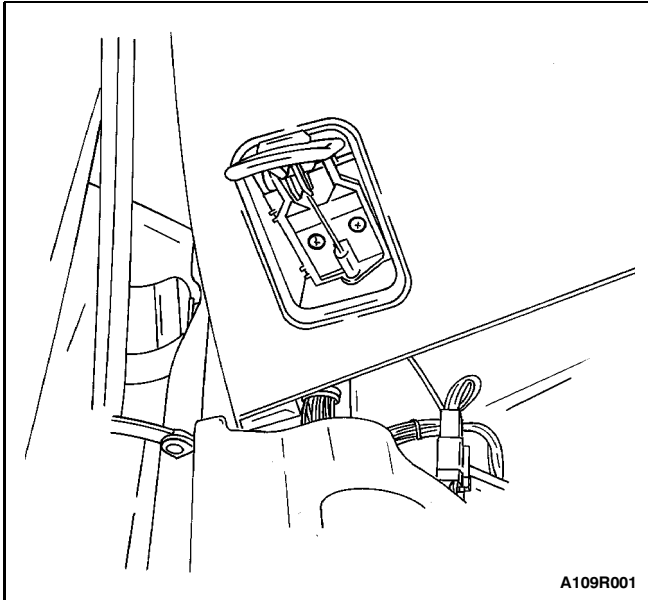
#### Tighten

Tighten the hood latch screws to 8 N•m (71 lb-in).

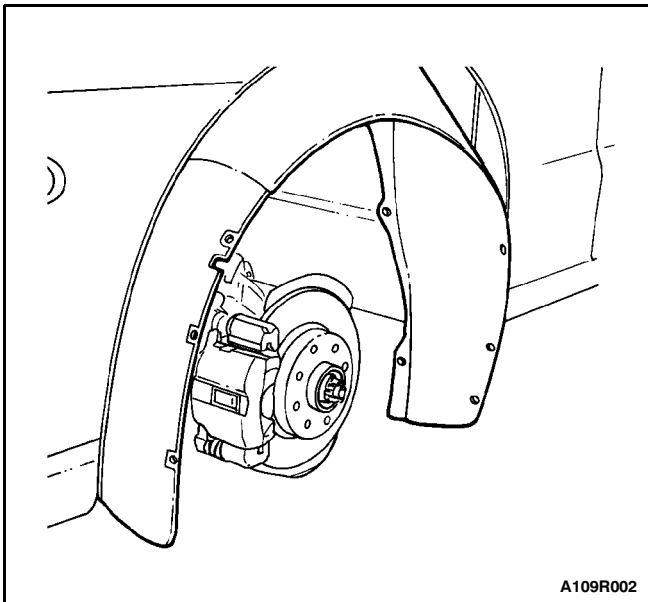
## HOOD LATCH RELEASE CABLE

### Removal Procedure

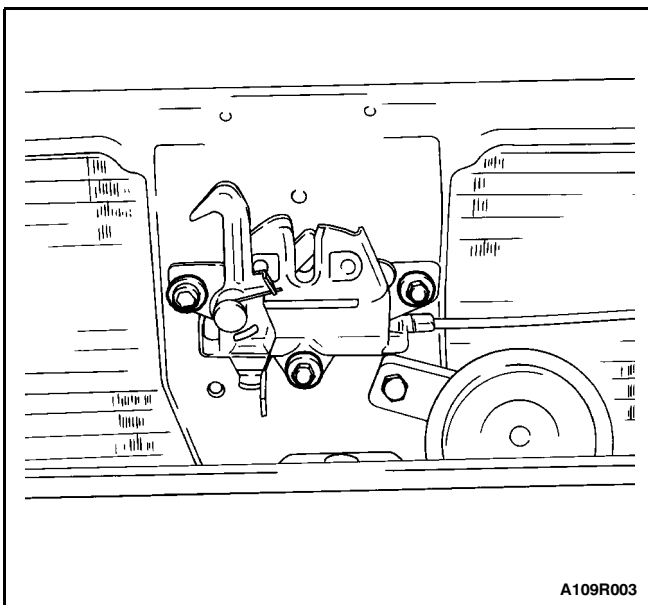
1. Pull out the hood release handle in order to access the screws.
2. Remove the screws and the hood release handle from the instrument panel.

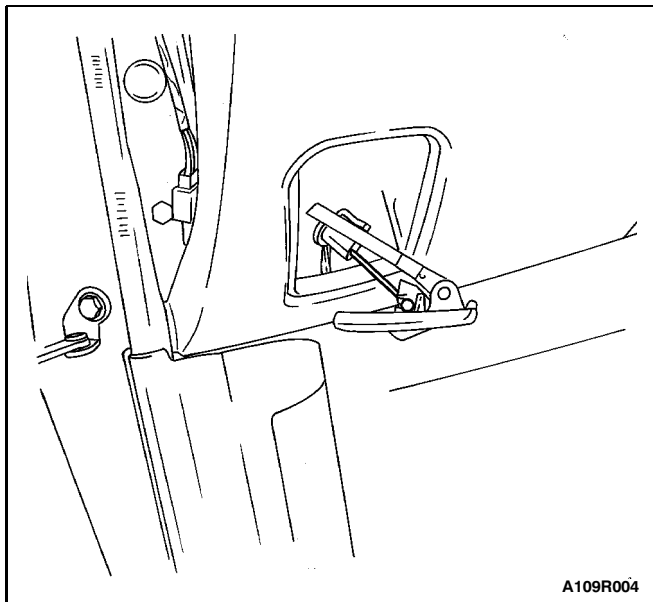


3. Raise and suitably support the vehicle.
4. Remove the front wheel. Refer to Section 2E, Tires and Wheels.
5. Remove the screws and the splash shield.



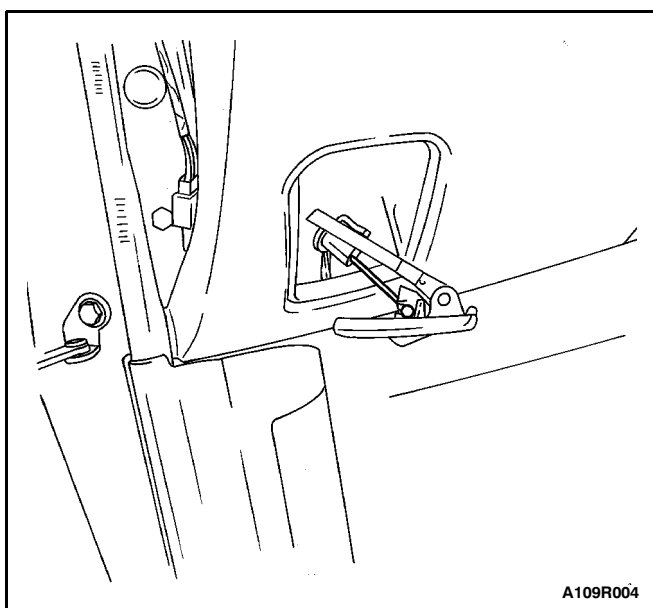
6. Open the hood.
7. Remove the screws and the hood secondary latch.





8. Remove the cable from the hood release handle.

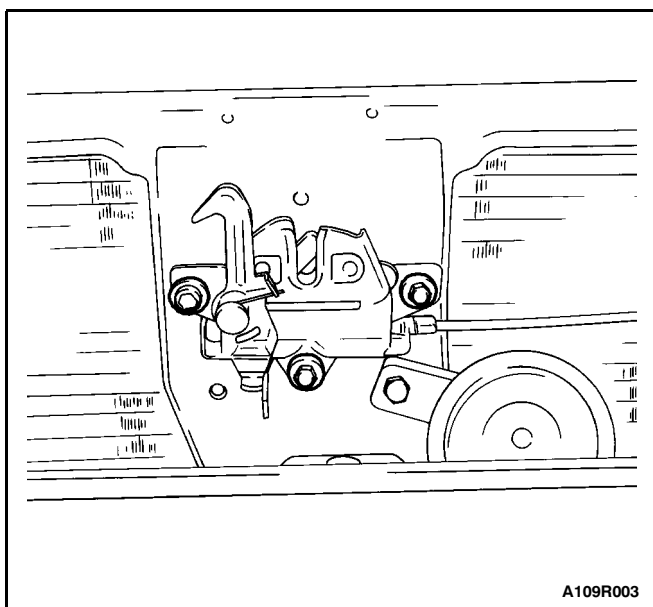
9. Remove the cable from inside the vehicle.



### Installation Procedure

1. Install the cable from inside the vehicle.

2. Install the cable to the hood release handle.



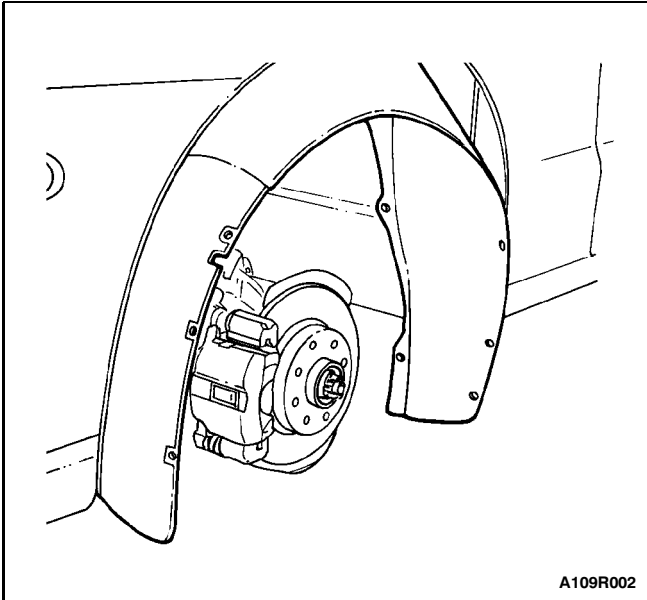
**Notice:** Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.

3. Install the screws and the hood secondary latch.

### Tighten

Tighten the hood latch screws to 8 N•m (71 lb-in).



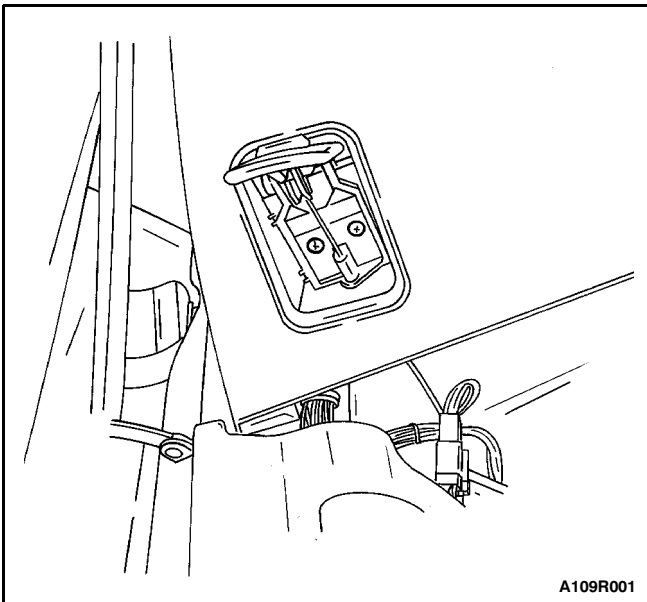


A109R002

4. Install the splash shield with the screws.

**Tighten**

Tighten the splash shield screws to 1.5 N•m (13 lb-in).



A109R001

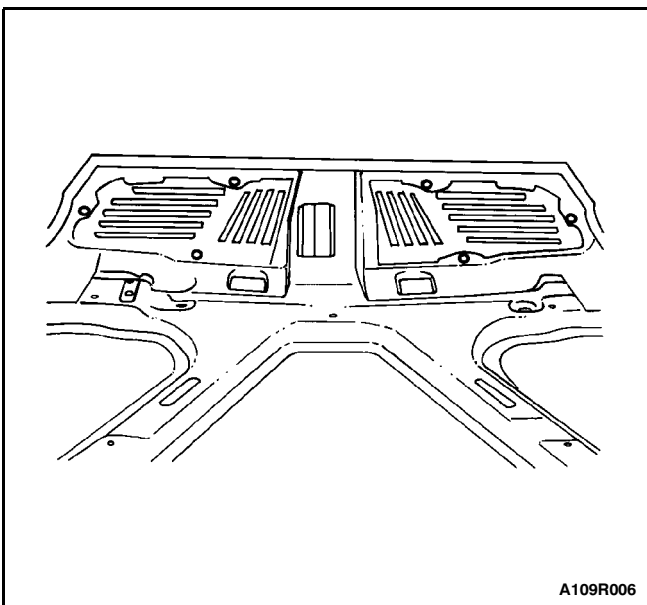
5. Install the front wheel. Refer to Section 2E, Tires and Wheels.

6. Lower the vehicle.

7. Install the hood release handle on the instrument panel with the screws.

**Tighten**

Tighten the hood release handle screws to 1.5 N•m (13 lb-in).

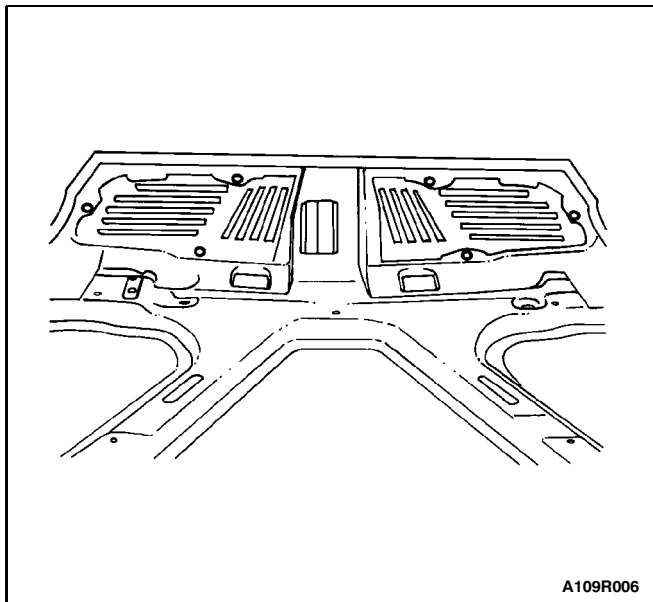


A109R006

## **RADIATOR GRILLE**

### **Removal Procedure**

1. Open the hood.
2. Remove the nuts and the radiator grille.



A109R006

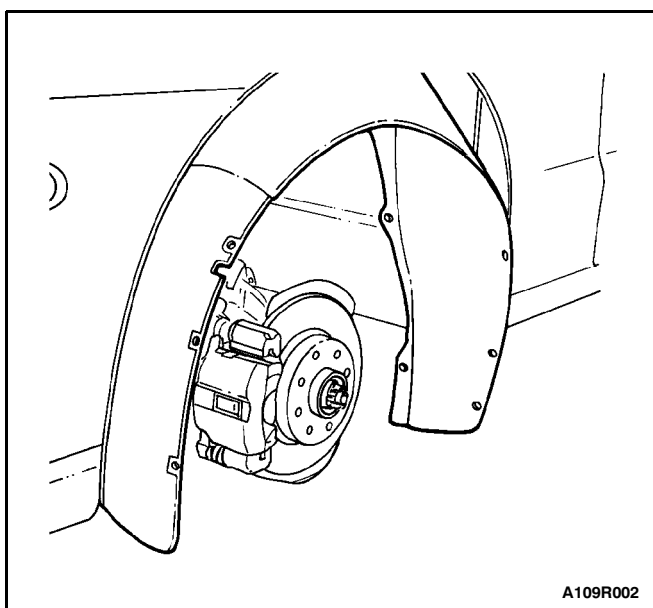
### Installation Procedure

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 radiator grille with the nuts.

### Tighten

Tighten the radiator grille nuts to 2 N•m (18 lb-in).

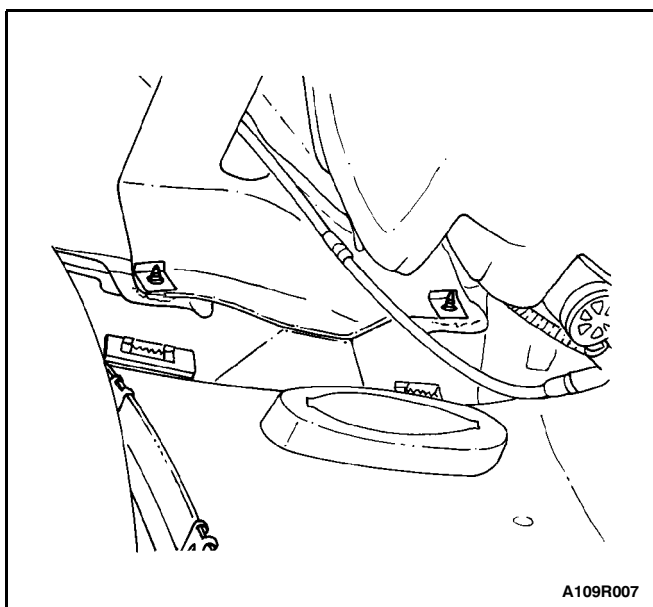


A109R002

## FENDER

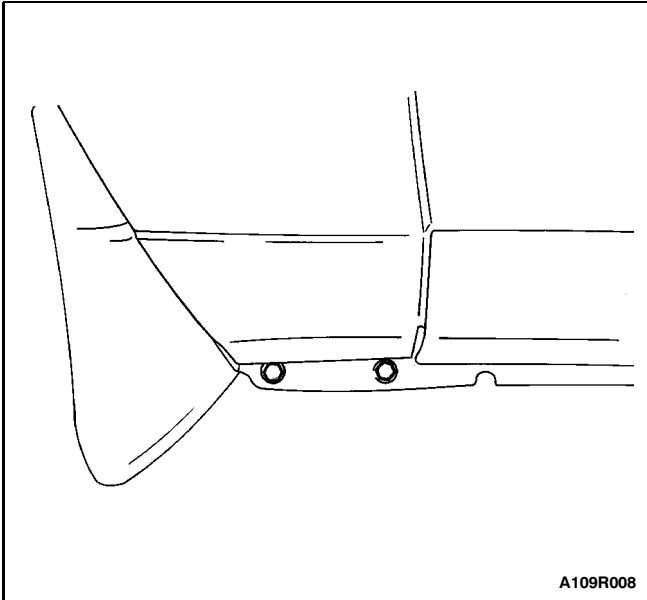
### Removal Procedure

1. Raise and suitably support the vehicle.
2. Remove the front wheel. Refer to Section 2E, Tires and Wheels.
3. Remove the bolts and the splash shield.

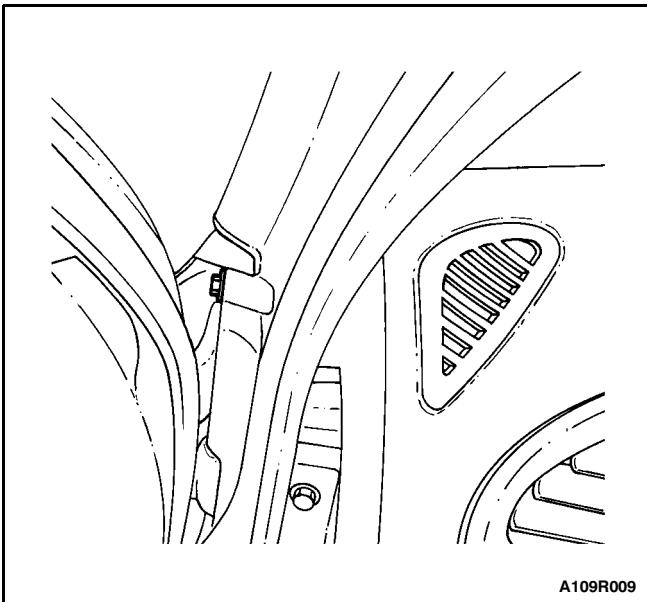


A109R007

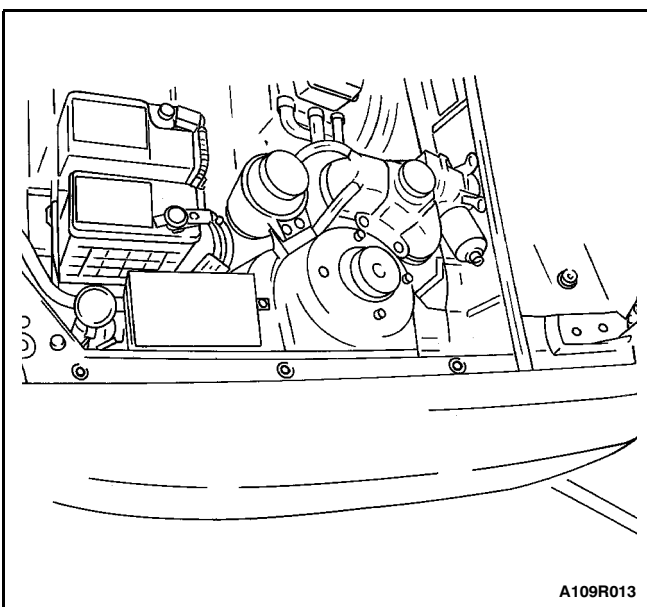
4. Remove the screws underneath the front bumper fascia.



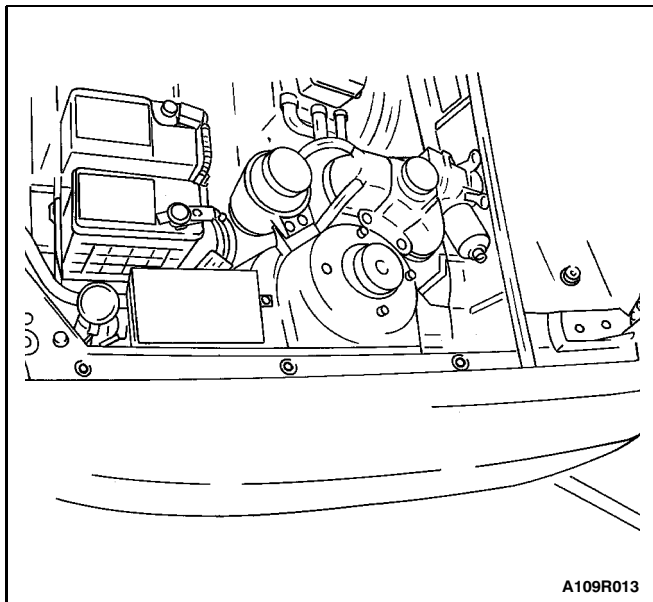
5. Remove the screw securing the front bumper fascia to the fender.
6. Remove the bolts at the base of the fender.



7. Open the front door. Remove the bolt at the base of the A-pillar.



8. Open the hood.
9. Remove the headlamp. Refer to Section 9B, Lighting Systems.
10. Remove the bolts along the top of the fender.
11. Remove the fender.



### Installation Procedure

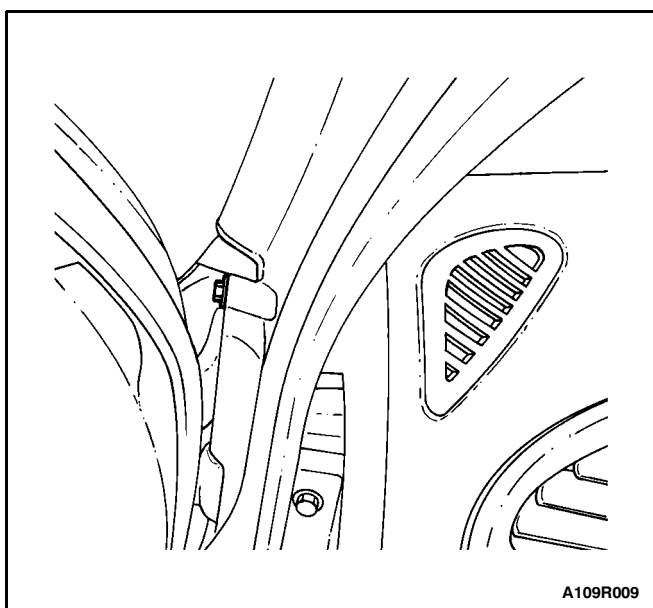
1. Install the headlamp. Refer to Section 9B, Lighting Systems.
2. Install the fender.

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

3. Install the bolts along the top of the fender.

#### Tighten

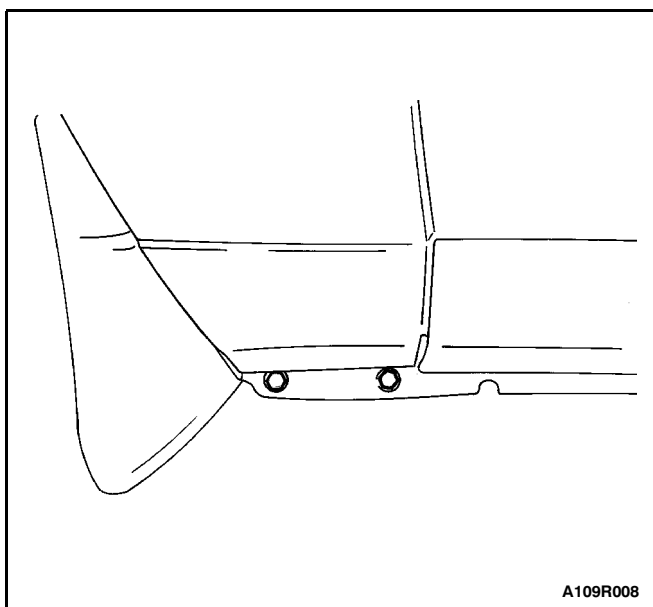
Tighten the upper fender bolts to 8 N•m (71 lb-in).



4. Install the bolt at the base of the A-pillar.

#### Tighten

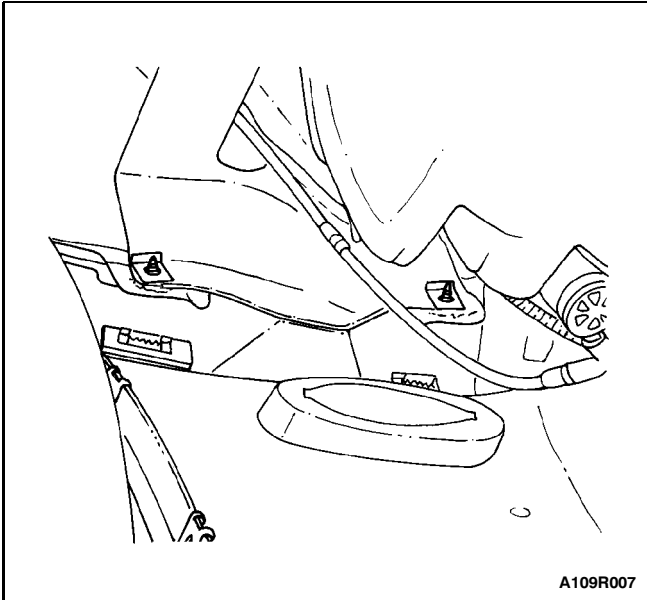
Tighten the fender-to-A-pillar bolt to 8 N•m (71 lb-in).



5. Install the bolts at the base of the fender.

#### Tighten

Tighten the lower fender bolts to 8 N•m (71 lb-in).



A109R007

6. Secure the fender to the front bumper fascia with the screw.

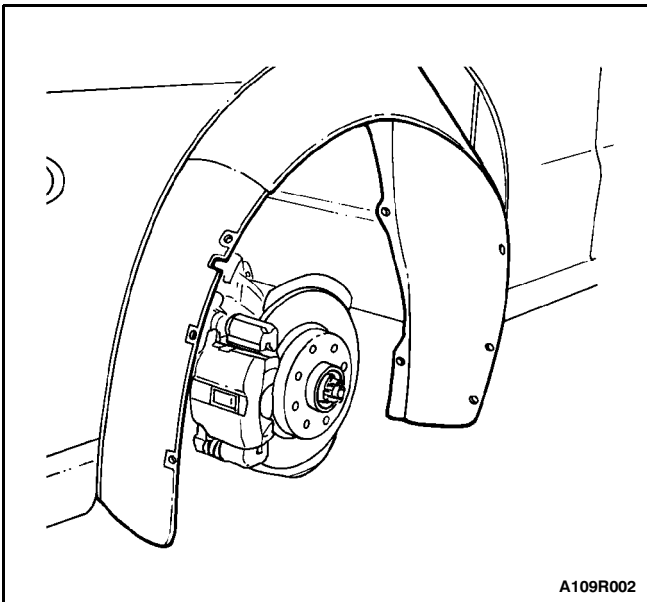
**Tighten**

Tighten the front bumper fascia screw to 1.5 N•m (13 lb-in).

7. Secure the fender behind the front bumper fascia with the screws.

**Tighten**

Tighten the fender screws to 4 N•m (35 lb-in).



A109R002

8. Install the splash shield with the screws.

**Tighten**

Tighten the splash shield screws to 1.5 N•m (13 lb-in).

9. Install the front wheel. Refer to Section 2E, Tires and Wheels.

10. Lower the vehicle.

## **GENERAL DESCRIPTION AND SYSTEM OPERATION**

### **BODY FRONT END**

This vehicle has a unitized body with a frame assembly supporting the engine and the transaxle. The fender panels and the radiator support are also integral parts of the body.