

## 2008 Isuzu Ascender LS

2008 Accessories & Equipment Frame & Underbody - Ascender, Envoy & Trailblazer

### 2008 Accessories & Equipment

#### Frame & Underbody - Ascender, Envoy & Trailblazer

## SPECIFICATIONS

### FASTENER TIGHTENING SPECIFICATIONS

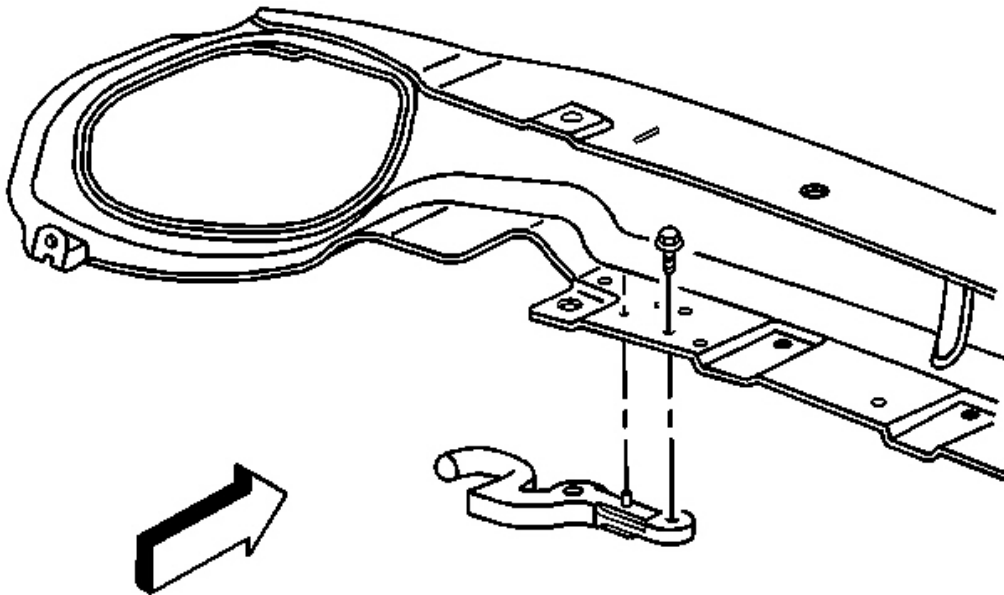
Application	Specification	
	Metric	English
Assist Step Bracket to Assist Step Nuts	25 N.m	18 lb ft
Assist Step Bracket to Body Bolts	25 N.m	18 lb ft
Body Mount Bolts	82 N.m	60 lb ft
Engine Shield Mounting Bolts	20 N.m	15 lb ft
Engine Splash Shield to Frame Bolts	20 N.m	15 lb ft
Exhaust Shield to Frame Bolts	20 N.m	15 lb ft
Frame Brace Mounting Bolts	20 N.m	15 lb ft
Front Impact Bar to Toe Hook Bolt	85 N.m	63 lb ft
Front Steering Gear Crossmember Mounting Bolts	50 N.m	37 lb ft
Fuel Tank Shield to Frame Mounting Bolts	32 N.m	24 lb ft
Lower Control Arm Bracket Rear Mounting Bolts	230 N.m	170 lb ft
Lower Transmission Support to Frame Bolts	50 N.m	37 lb ft
Radiator Support Shield Brace to Frame Bolt	20 N.m	15 lb ft
Radiator Support Shield Mounting Bolts	20 N.m	15 lb ft
Rear Steering Gear Crossmember Mounting Bolts	50 N.m	37 lb ft
Tow Hook to Front Impact Bar Bolt	50 N.m	37 lb ft
Transfer Case Shield Mounting Bolts	16 N.m	12 lb ft
Transmission Mount to Transmission Support Nuts	46 N.m	35 lb ft
Upper Transmission Support to Frame Bolts	80 N.m	59 lb ft

## REPAIR INSTRUCTIONS

### FRONT TOW HOOK REPLACEMENT (TRAILBLAZER)

#### Removal Procedure

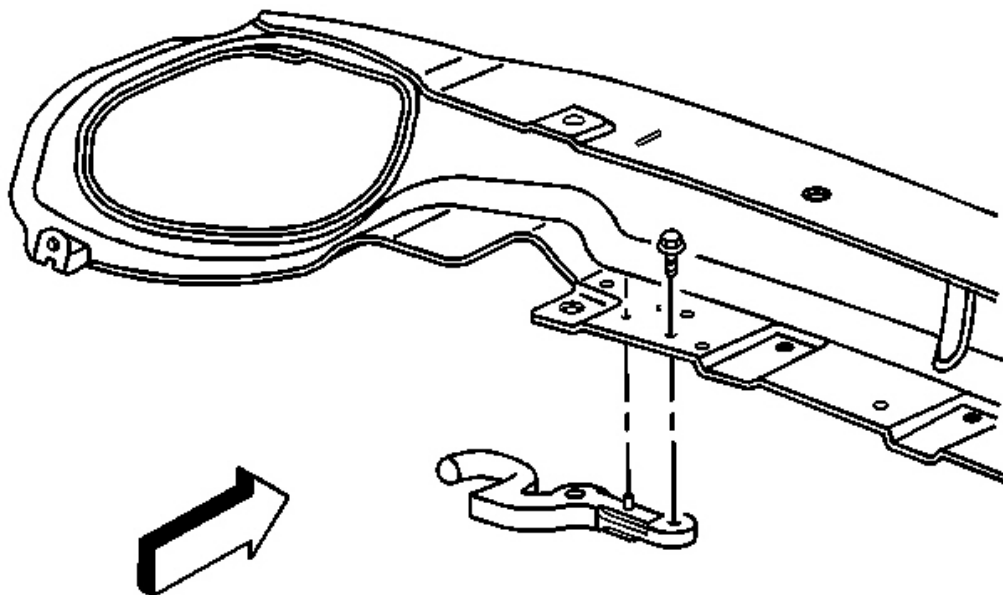
1. Remove the grille. Refer to **Grille Replacement (Envoy)** or **Grille Replacement (TrailBlazer)** .
2. Remove the front fascia. Refer to **Front Bumper Fascia Replacement (Envoy)** or **Front Bumper Fascia Replacement (TrailBlazer)** .
3. Remove the front impact bar. Refer to **Front Bumper Impact Bar Replacement** .
4. Place the impact bar on a clean, prepared surface.



**Fig. 1: Identifying Tow Hook & Retaining Bolt**  
Courtesy of GENERAL MOTORS CORP.

5. Remove the bolt that retains the tow hook to the impact bar.
6. Remove the tow hook from the impact bar.

#### **Installation Procedure**



**Fig. 2: Identifying Tow Hook & Retaining Bolt**  
Courtesy of GENERAL MOTORS CORP.

1. Install the tow hook to the impact bar, ensuring that the locating pin is properly indexed to the impact bar.

**NOTE:** Refer to Fastener Notice .

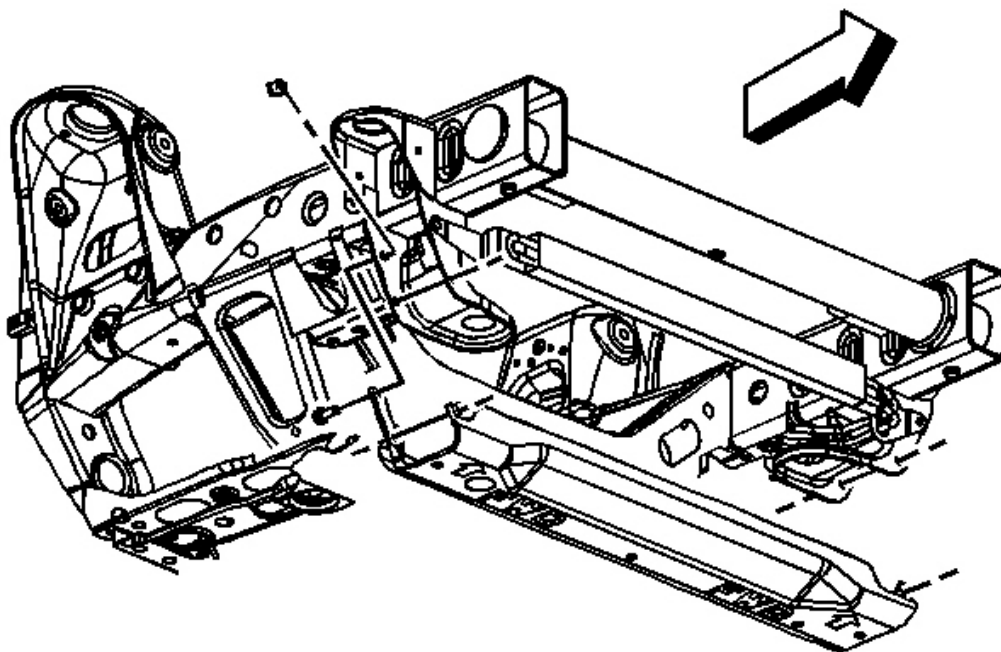
2. Install the bolt which retains the tow hook to the impact bar.

**Tighten:** Tighten the bolt to 50 N.m (37 lb ft).

3. Install the impact bar. Refer to Front Bumper Impact Bar Replacement .
4. Install the fascia. Refer to Front Bumper Fascia Replacement (Envoy) or Front Bumper Fascia Replacement (TrailBlazer) .
5. Install the grille. Refer to Grille Replacement (Envoy) or Grille Replacement (TrailBlazer) .

## RADIATOR SUPPORT SHIELD REPLACEMENT

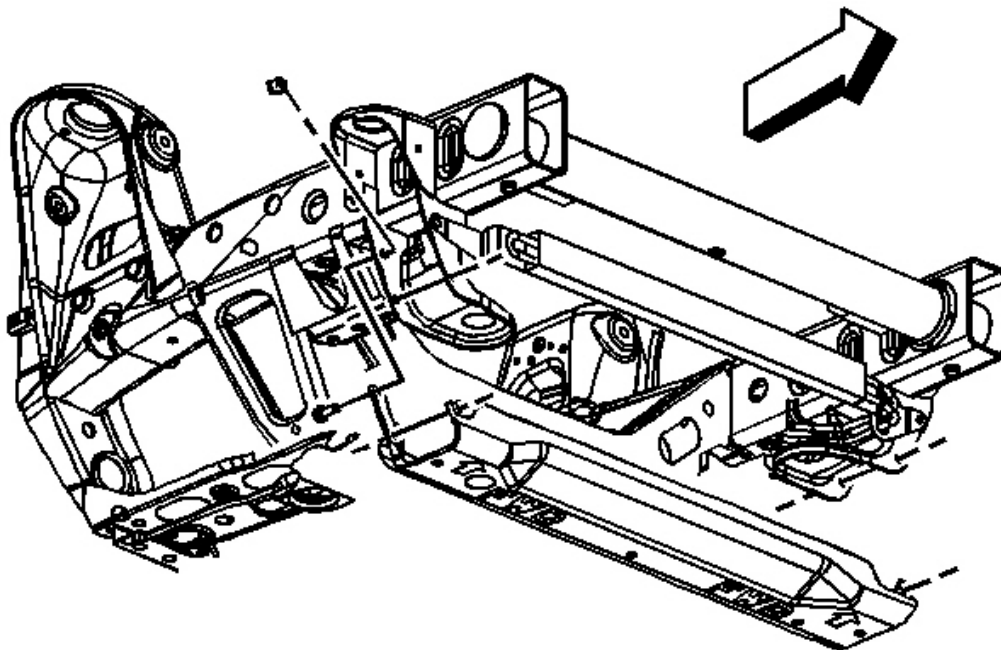
### Removal Procedure



**Fig. 3: View Of Radiator Support Shield**  
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the radiator support shield mounting nuts and bolts.
3. Remove the radiator support shield.

#### **Installation Procedure**



**Fig. 4: View Of Radiator Support Shield**  
Courtesy of GENERAL MOTORS CORP.

1. Install the radiator support shield.

**NOTE:** Refer to Fastener Notice .

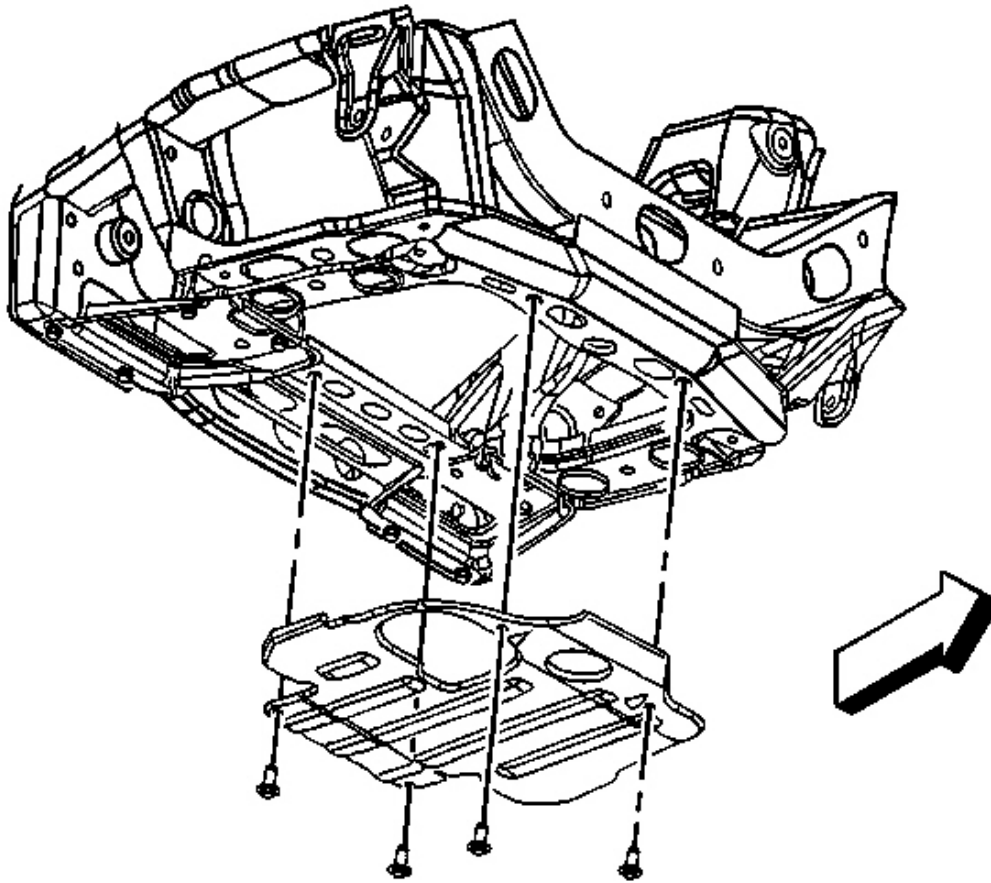
2. Install the radiator support shield mounting nuts and bolts.

**Tighten:** Tighten the radiator support shield mounting nuts to 20 N.m (15 lb ft).

3. Lower the vehicle.

## ENGINE PROTECTION SHIELD REPLACEMENT

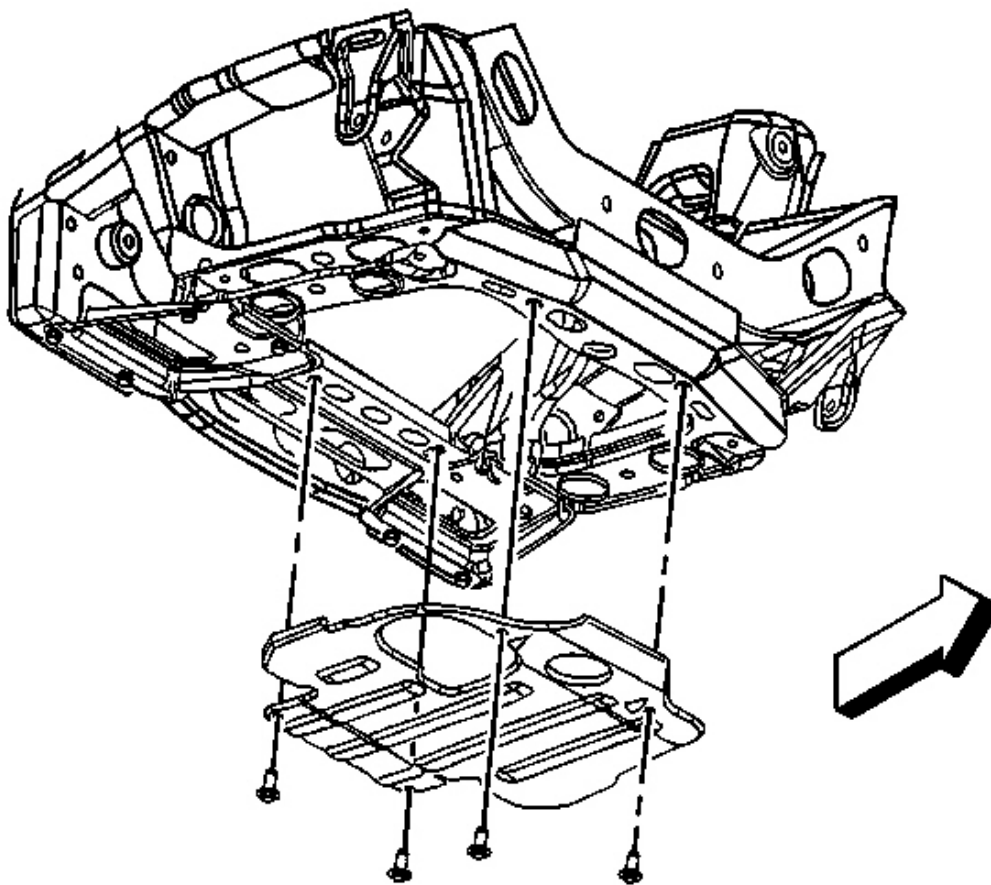
### Removal Procedure



**Fig. 5: Identifying Engine Shield**  
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the engine shield mounting bolts.
3. Remove the engine shield.

#### **Installation Procedure**



**Fig. 6: Identifying Engine Shield**  
Courtesy of GENERAL MOTORS CORP.

1. Install the engine shield.

**NOTE:** Refer to Fastener Notice .

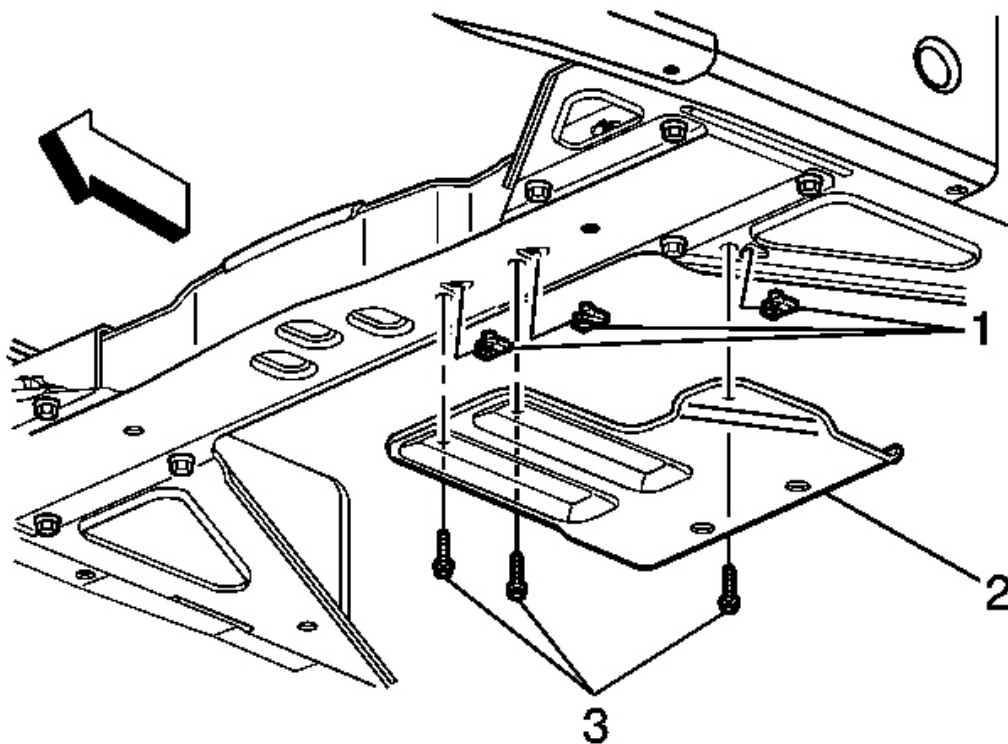
2. Install the engine shield mounting bolts.

**Tighten:** Tighten the engine shield mounting bolts to 20 N.m (15 lb ft).

3. Lower the vehicle.

## TRANSFER CASE SHIELD REPLACEMENT

## Removal Procedure

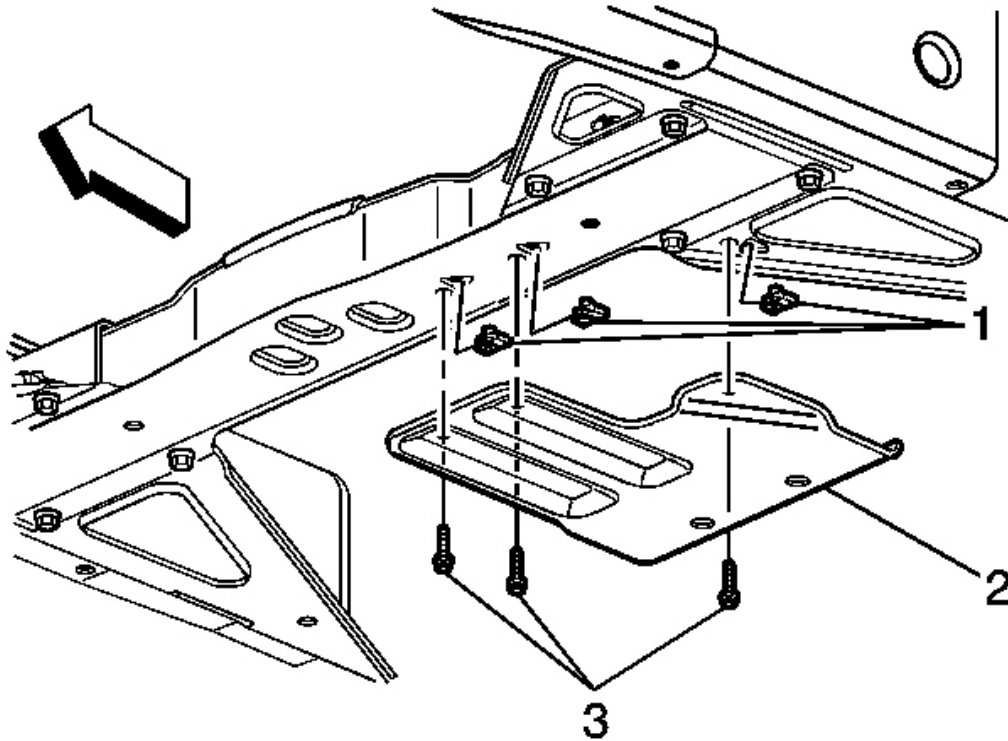


**Fig. 7: Identifying Transfer Case Shield & Mounting Bolts**  
**Courtesy of GENERAL MOTORS CORP.**

1. Raise the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the transfer case shield mounting bolts (3) from the transmission support.
3. Remove the transfer case shield (2) from transmission support.

## Installation Procedure





**Fig. 8: Identifying Transfer Case Shield & Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

1. Install the transfer case shield (2) to the transmission support. Ensure that the J-nuts (1) are in place.

**NOTE:** Refer to Fastener Notice .

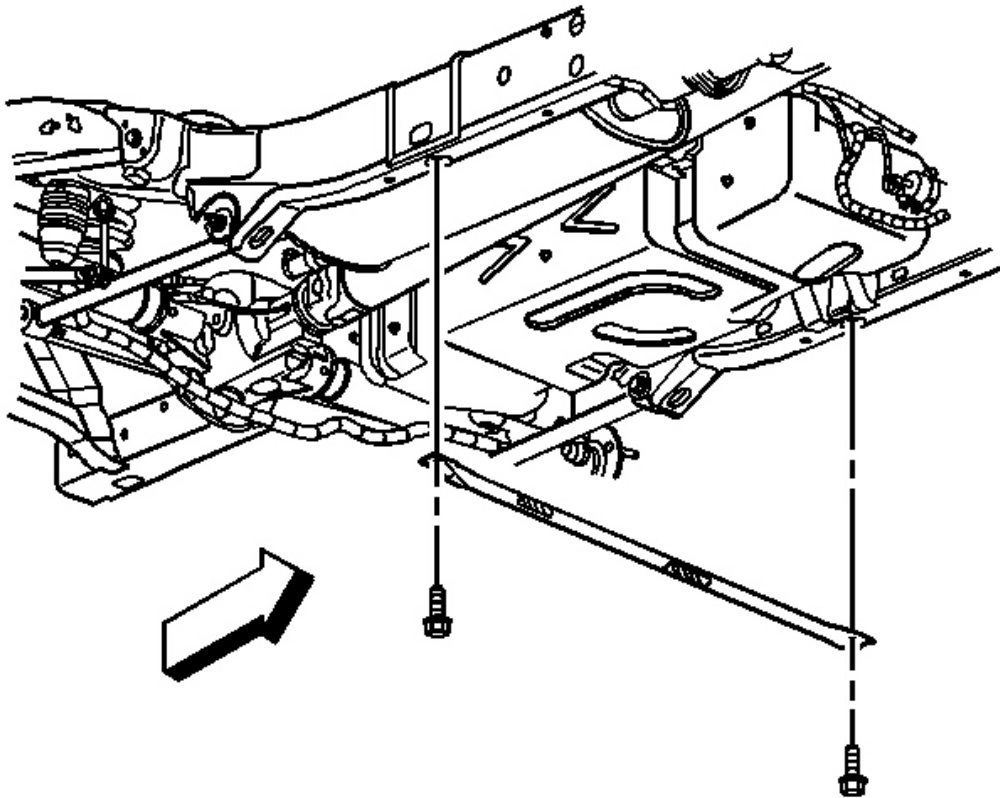
2. Install the transfer case shield mounting bolts (3).

**Tighten:** Tighten the transfer case shield mounting bolts to 16 N.m (12 lb ft).

3. Lower the vehicle. Refer to Lifting and Jacking the Vehicle .

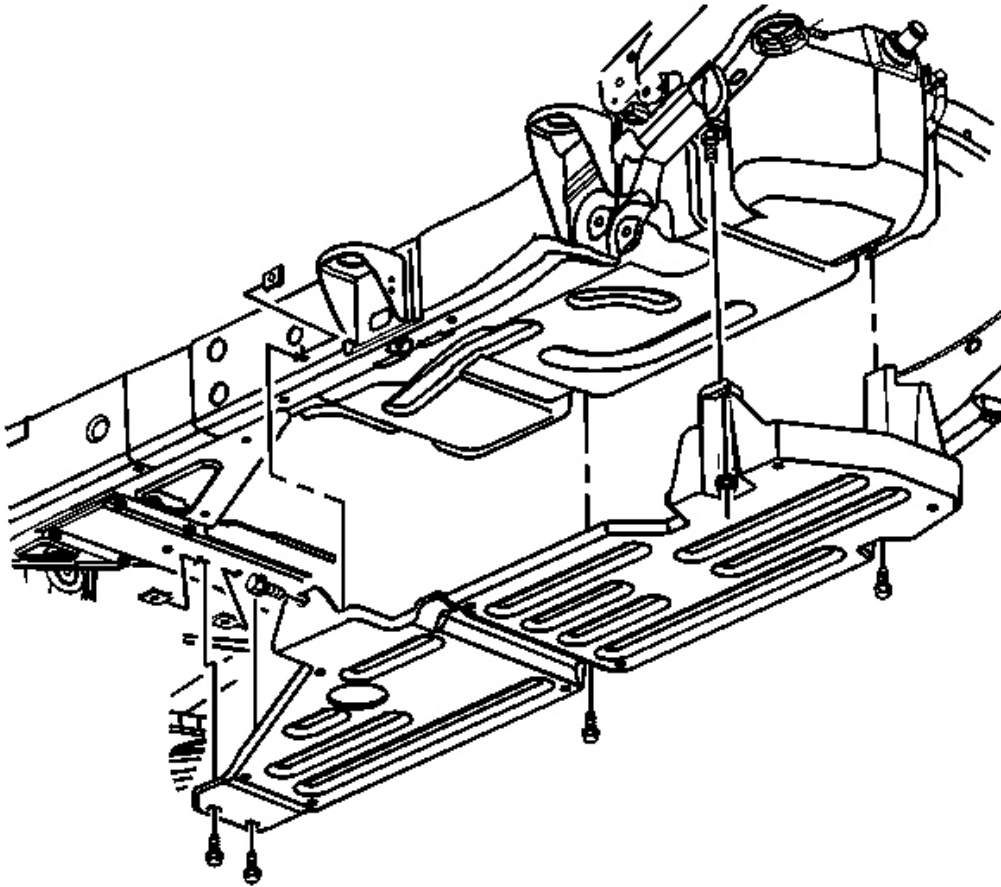
## FUEL TANK SHIELD REPLACEMENT

### Removal Procedure



**Fig. 9: View Of Frame Brace & Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

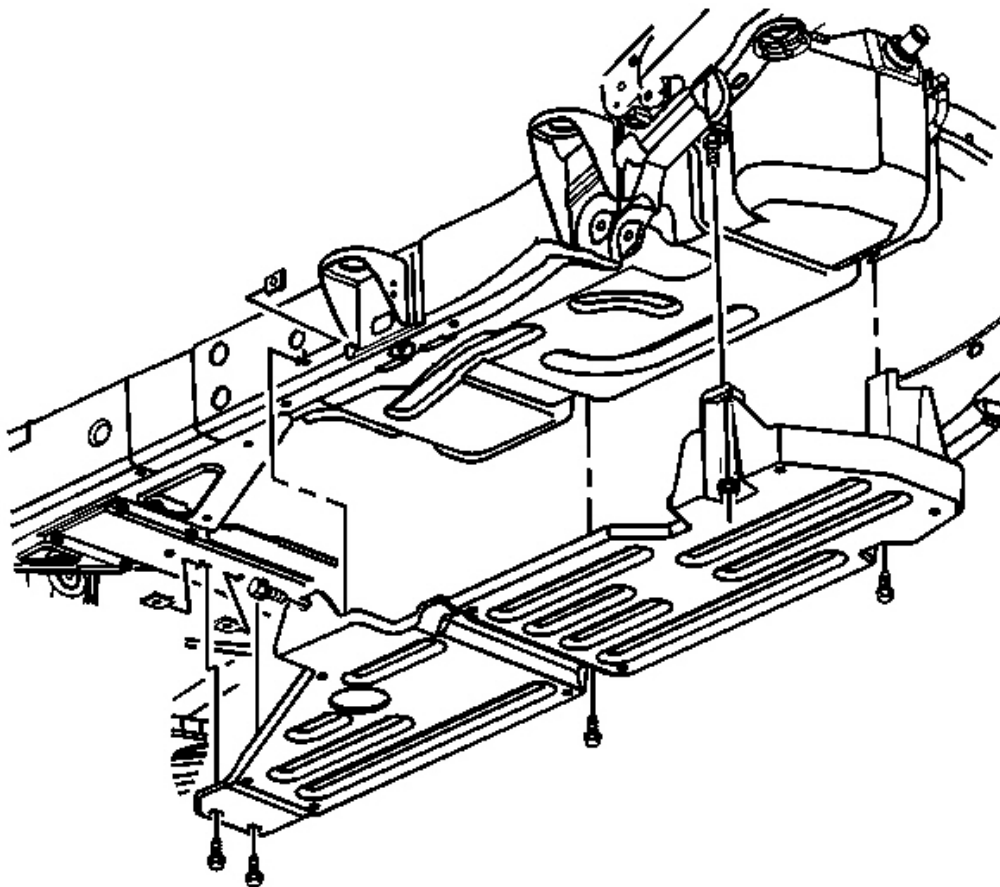
1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the frame brace mounting bolts.
3. Remove the frame brace.



**Fig. 10: View Of Fuel Tank Shield**  
Courtesy of GENERAL MOTORS CORP.

4. Remove the fuel tank shield to the frame retaining bolts and nut.
5. Remove the fuel tank shield from the frame.

#### **Installation Procedure**



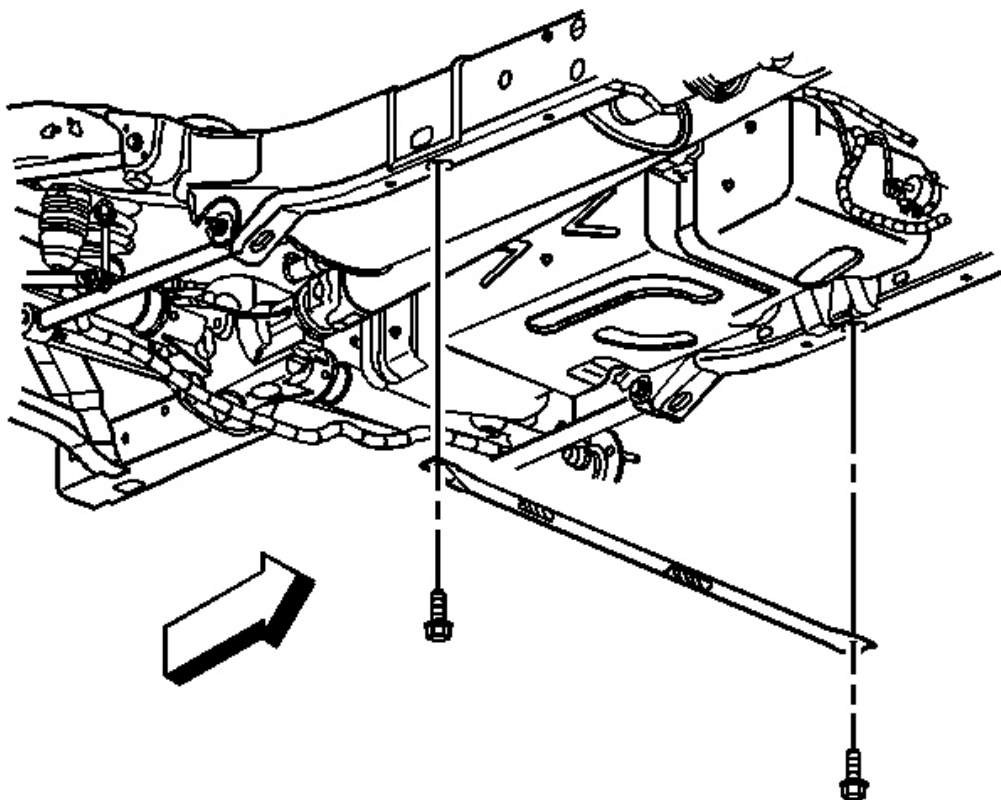
**Fig. 11: View Of Fuel Tank Shield**  
Courtesy of GENERAL MOTORS CORP.

1. Install the fuel tank shield to the frame.

**NOTE:** Refer to Fastener Notice .

2. Install the fuel tank shield to the frame retaining bolts and nut.

**Tighten:** Tighten the fuel tank shield to the frame retaining bolts and nut to 32 N.m (24 lb ft).



**Fig. 12: View Of Frame Brace & Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

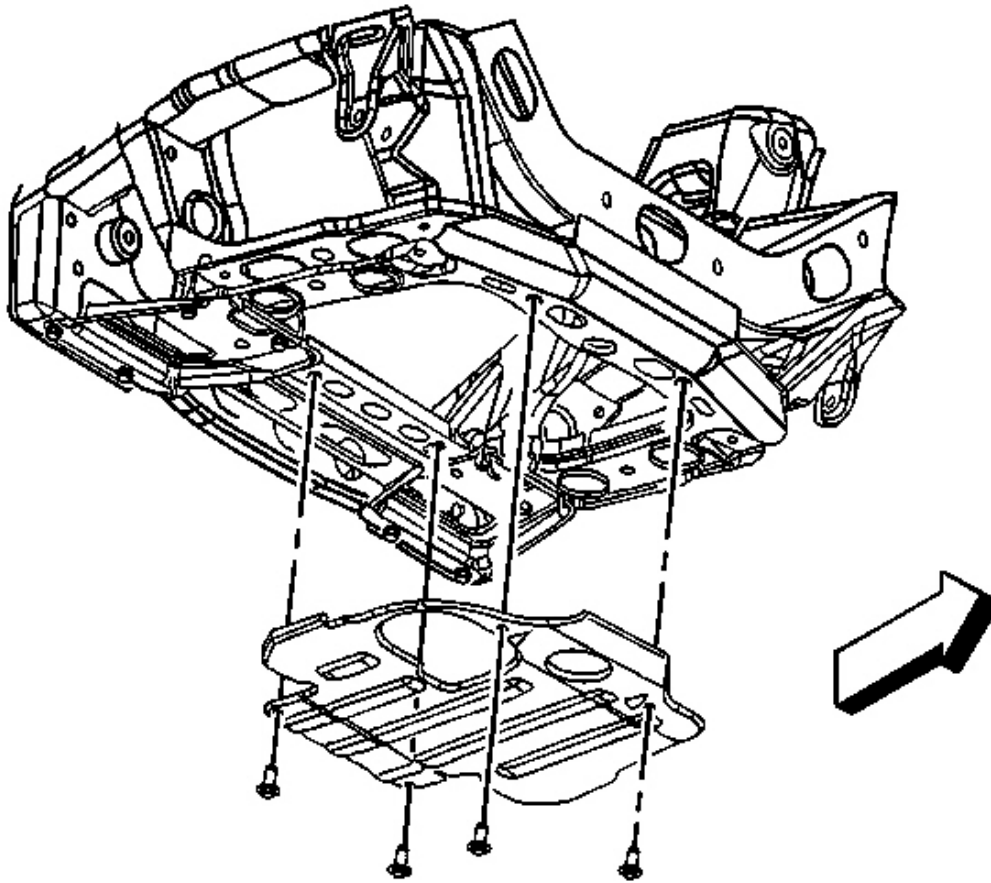
3. Install the frame brace.
4. Install the frame brace mounting bolts.

**Tighten:** Tighten the frame brace mounting bolts to 50 N.m (37 lb ft).

5. Lower the vehicle.

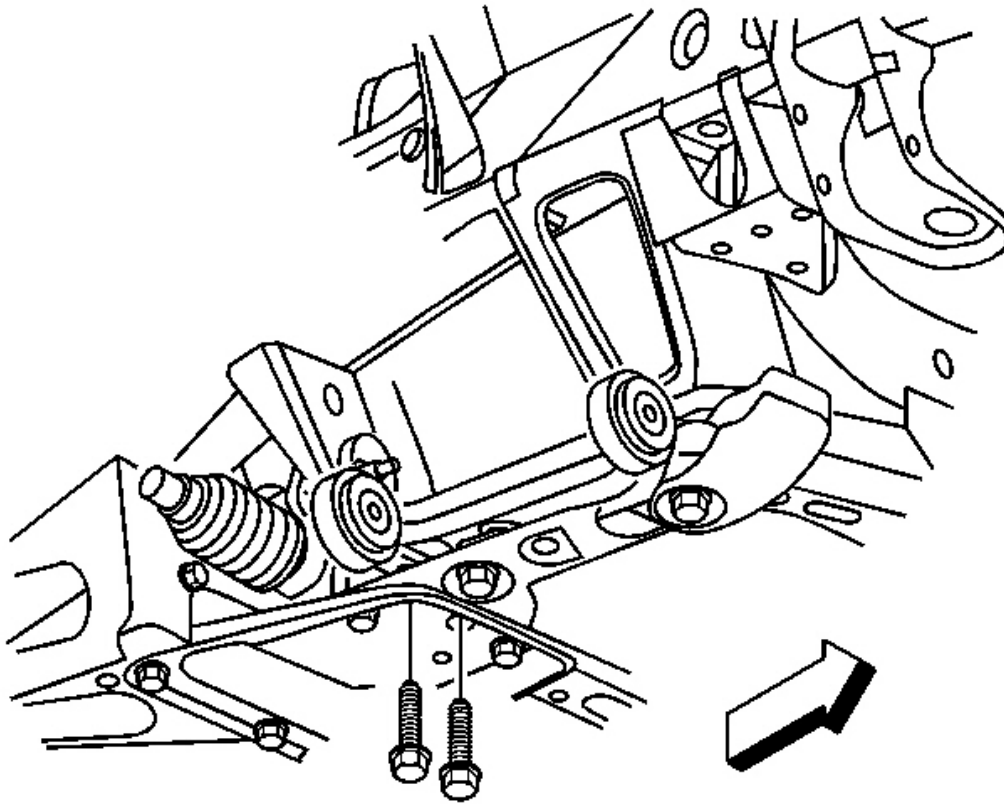
## FRONT STEERING GEAR CROSSMEMBER REPLACEMENT

### Removal Procedure



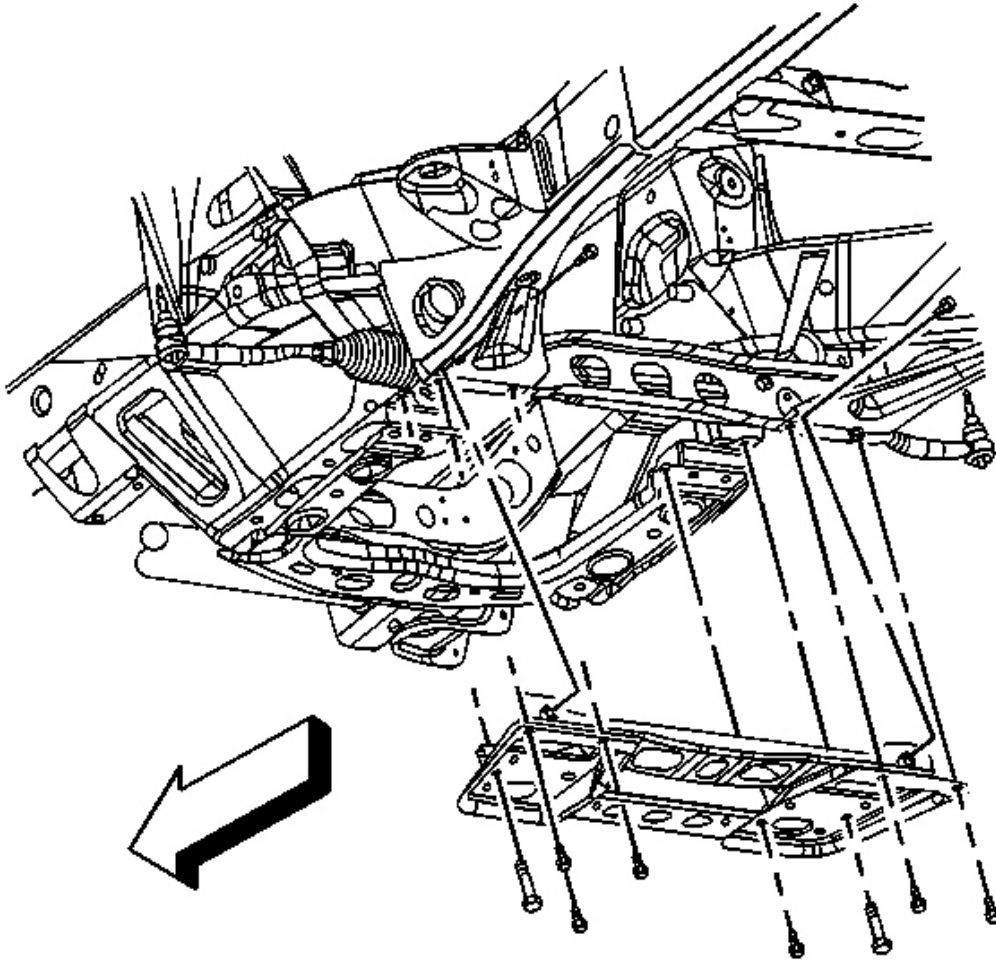
**Fig. 13: Identifying Engine Shield**  
**Courtesy of GENERAL MOTORS CORP.**

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the engine shield mounting bolts.
3. Remove the engine shield.



**Fig. 14: View Of Frame Mounting Bolts (Rear Lower Control Arm)**  
Courtesy of GENERAL MOTORS CORP.

4. Remove the rear lower control arm bracket to frame mounting bolts.

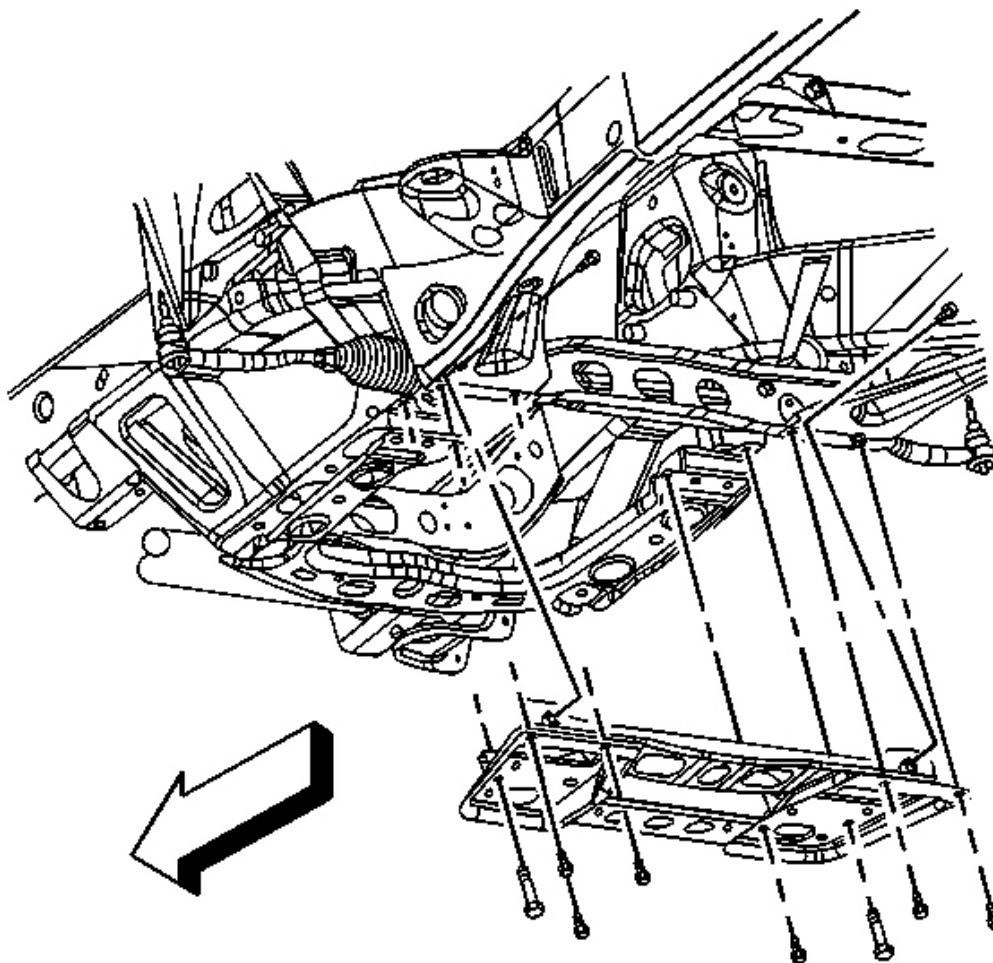


**Fig. 15: View Of Steering Gear Crossmember Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

5. Remove the steering gear crossmember mounting bolts.
6. Remove the steering gear crossmember.

#### **Installation Procedure**





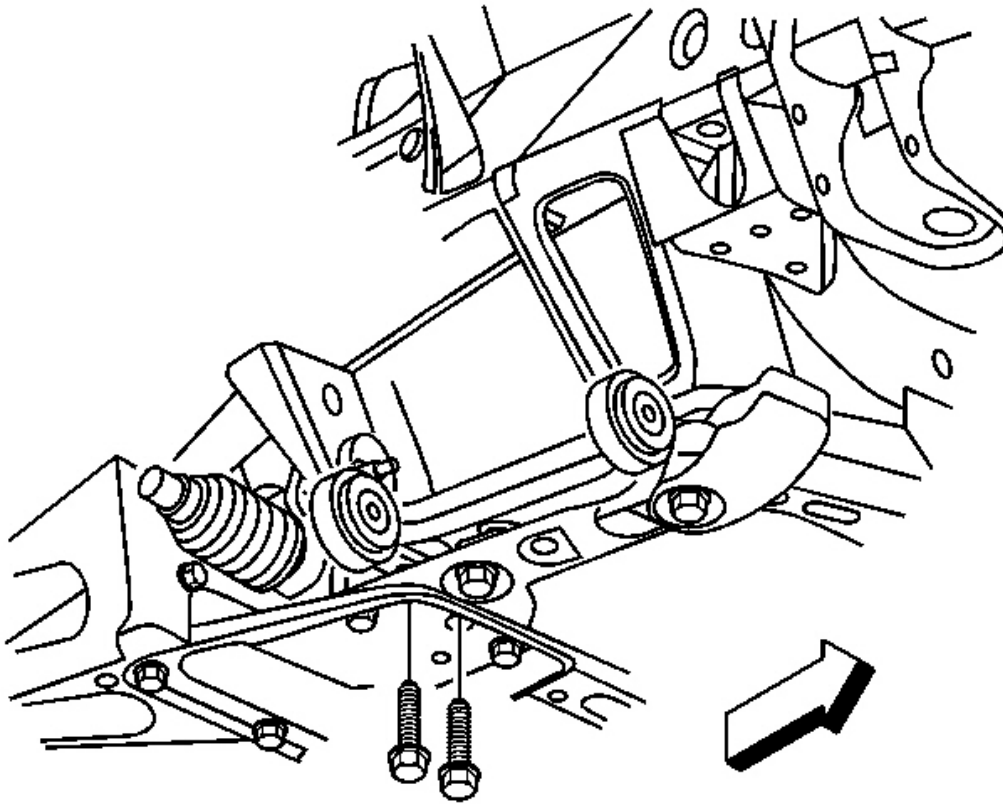
**Fig. 16: View Of Steering Gear Crossmember Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

1. Install the steering gear crossmember.

**NOTE:** Refer to Fastener Notice .

2. Install the steering gear crossmember mounting bolts.

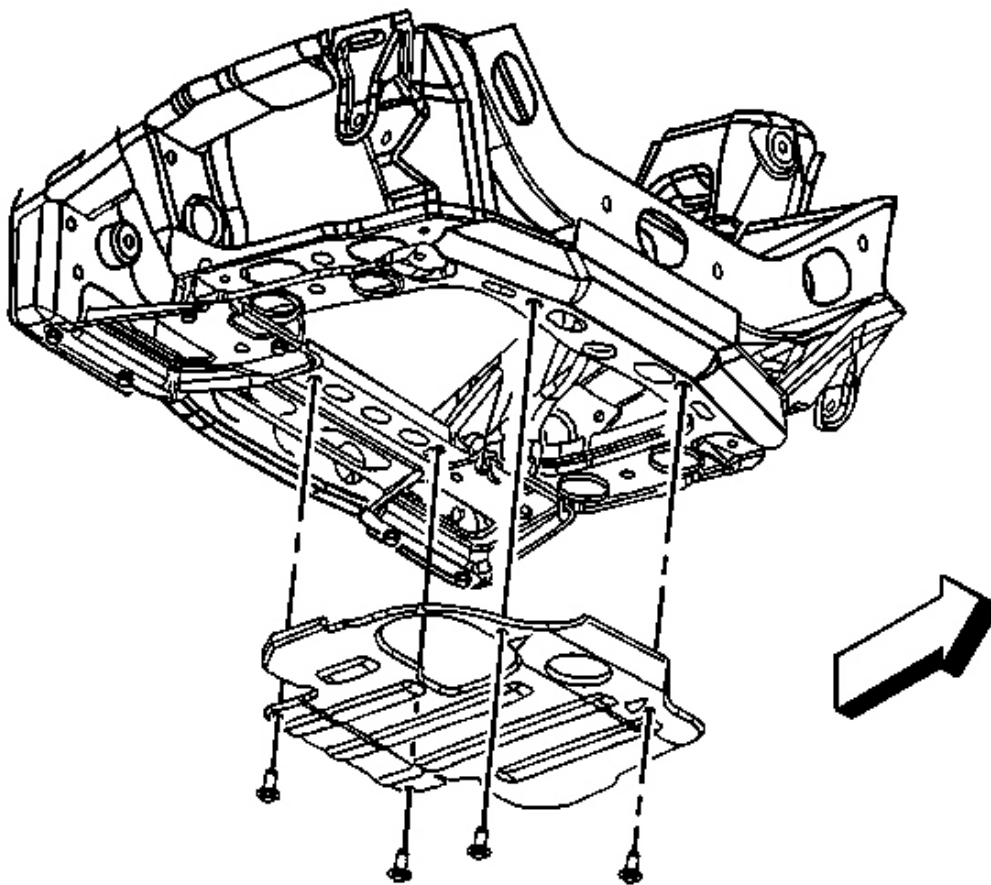
**Tighten:** Tighten the steering gear crossmember mounting bolts to 50 N.m (37 lb ft).



**Fig. 17: View Of Frame Mounting Bolts (Rear Lower Control Arm)**  
Courtesy of GENERAL MOTORS CORP.

3. Install the rear lower control arm bracket to frame mounting bolts.

**Tighten:** Tighten the rear lower control arm bracket to frame mounting bolts to 230 N.m (170 lb ft).



**Fig. 18: Identifying Engine Shield**  
Courtesy of GENERAL MOTORS CORP.

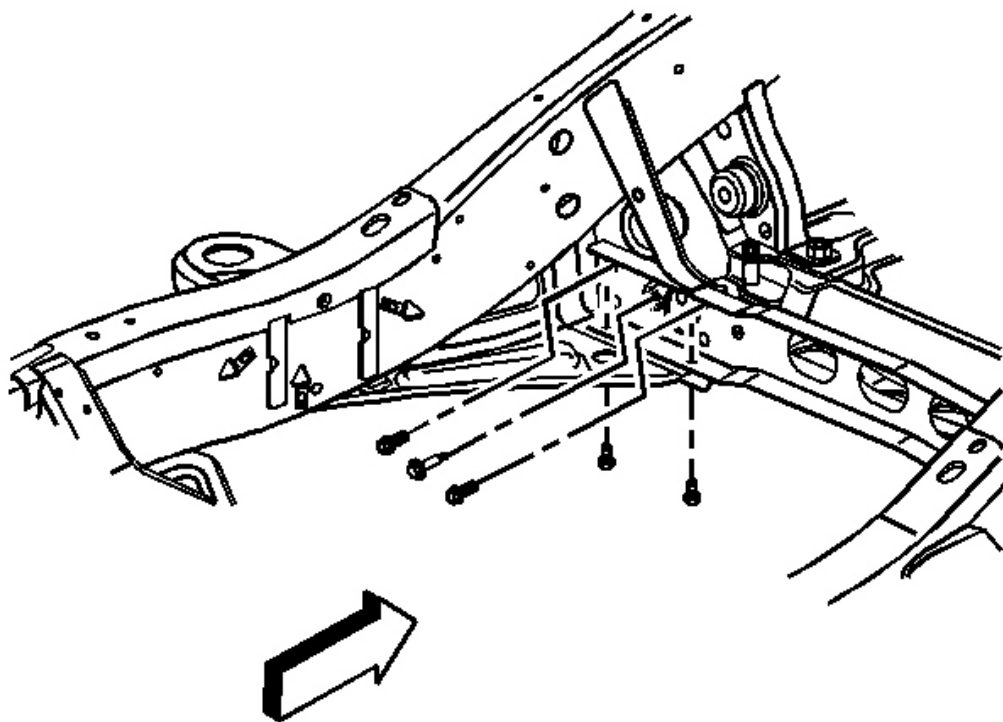
4. Install the engine shield.
5. Install the engine shield mounting bolts.

**Tighten:** Tighten the engine shield mounting bolts to 20 N.m (15 lb ft).

6. Lower the vehicle.

## REAR STEERING GEAR CROSSMEMBER REPLACEMENT

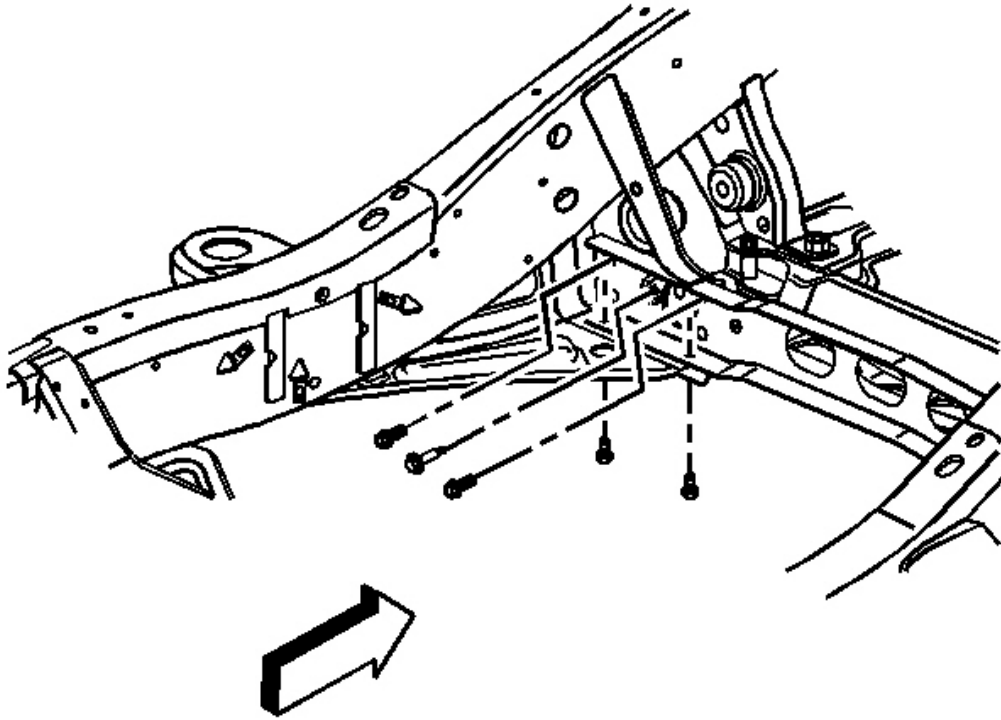
### Removal Procedure



**Fig. 19: Identifying Rear Steering Gear Crossmember**  
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Remove the front steering gear crossmember rear mounting bolts.
3. Remove the rear steering gear crossmember mounting bolts.
4. Remove the rear steering gear crossmember from the vehicle.

**Installation Procedure**



**Fig. 20: Identifying Rear Steering Gear Crossmember**  
Courtesy of GENERAL MOTORS CORP.

1. Install the rear steering gear crossmember to the vehicle.

**NOTE:** Refer to Fastener Notice .

2. Install the rear steering gear crossmember mounting bolts.

**Tighten:** Tighten the rear steering gear crossmember mounting bolts to 50 N.m (37 lb ft).

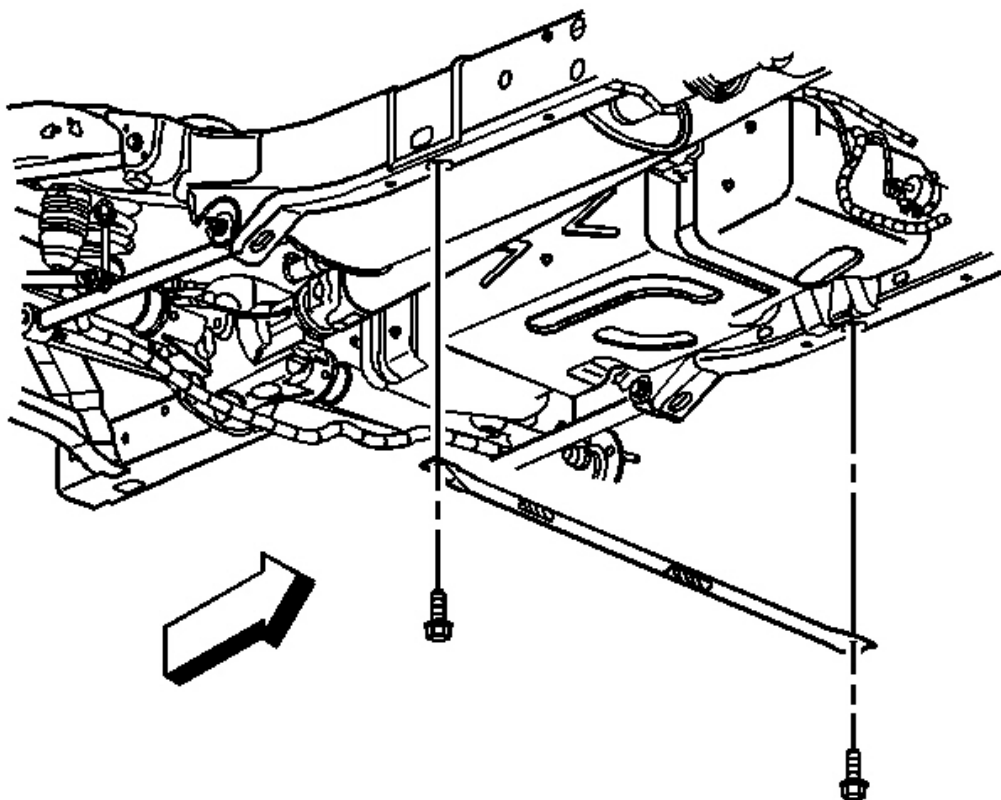
3. Install the front steering gear crossmember rear mounting bolts.

**Tighten:** Tighten the front steering gear crossmember mounting bolts to 50 N.m (37 lb ft).

4. Lower the vehicle.

## FRAME BRACE REPLACEMENT

### Removal Procedure



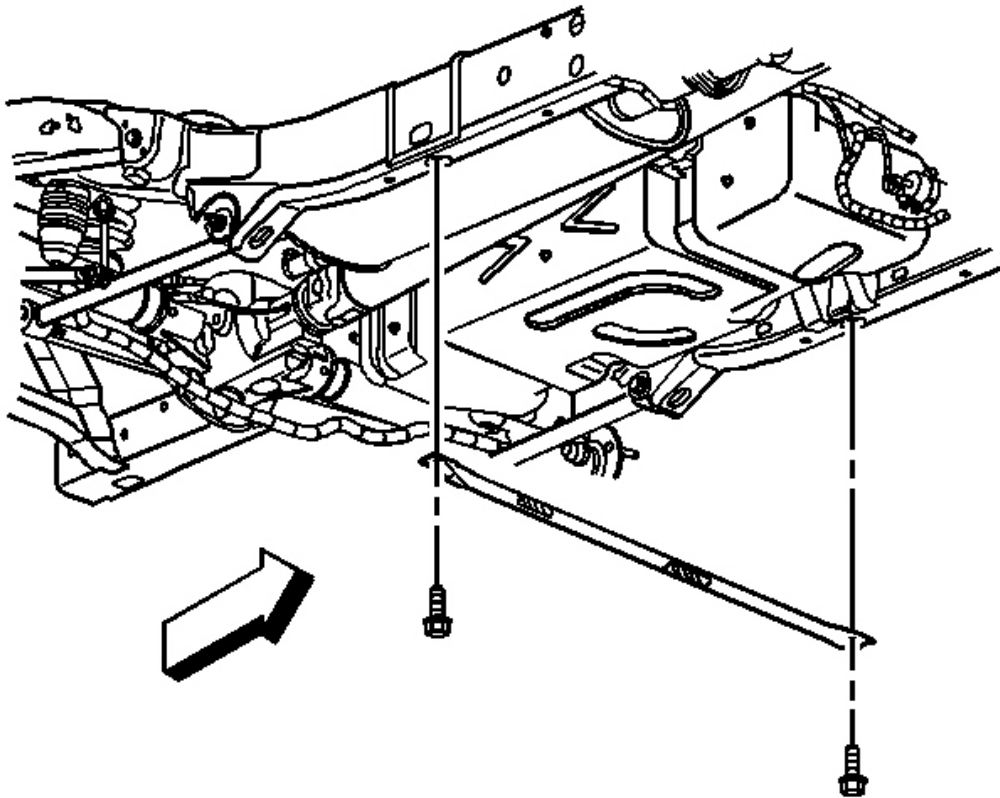
**Fig. 21: View Of Frame Brace**

Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .
2. Remove the 2 mounting bolts from the frame brace.
3. Remove the frame brace from the frame.

**Installation Procedure**

**NOTE:** Refer to Fastener Notice .



**Fig. 22: View Of Frame Brace**

Courtesy of GENERAL MOTORS CORP.

1. Install the frame brace to the frame using the 2 mounting bolts.

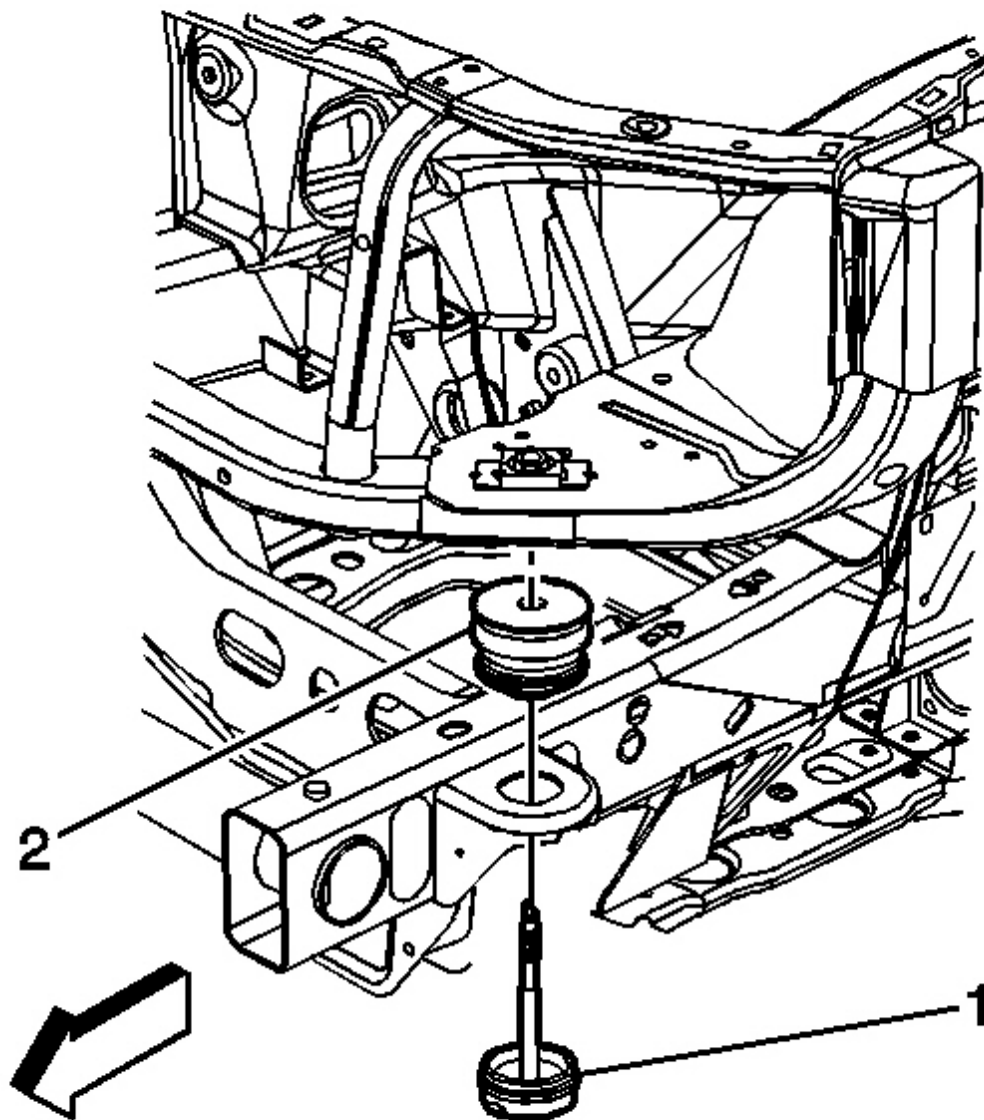
**Tighten:** Tighten the bolts to 20 N.m (15 lb ft).

2. Lower the vehicle.

## FRAME CUSHION OR INSULATOR REPLACEMENT

### Removal Procedure

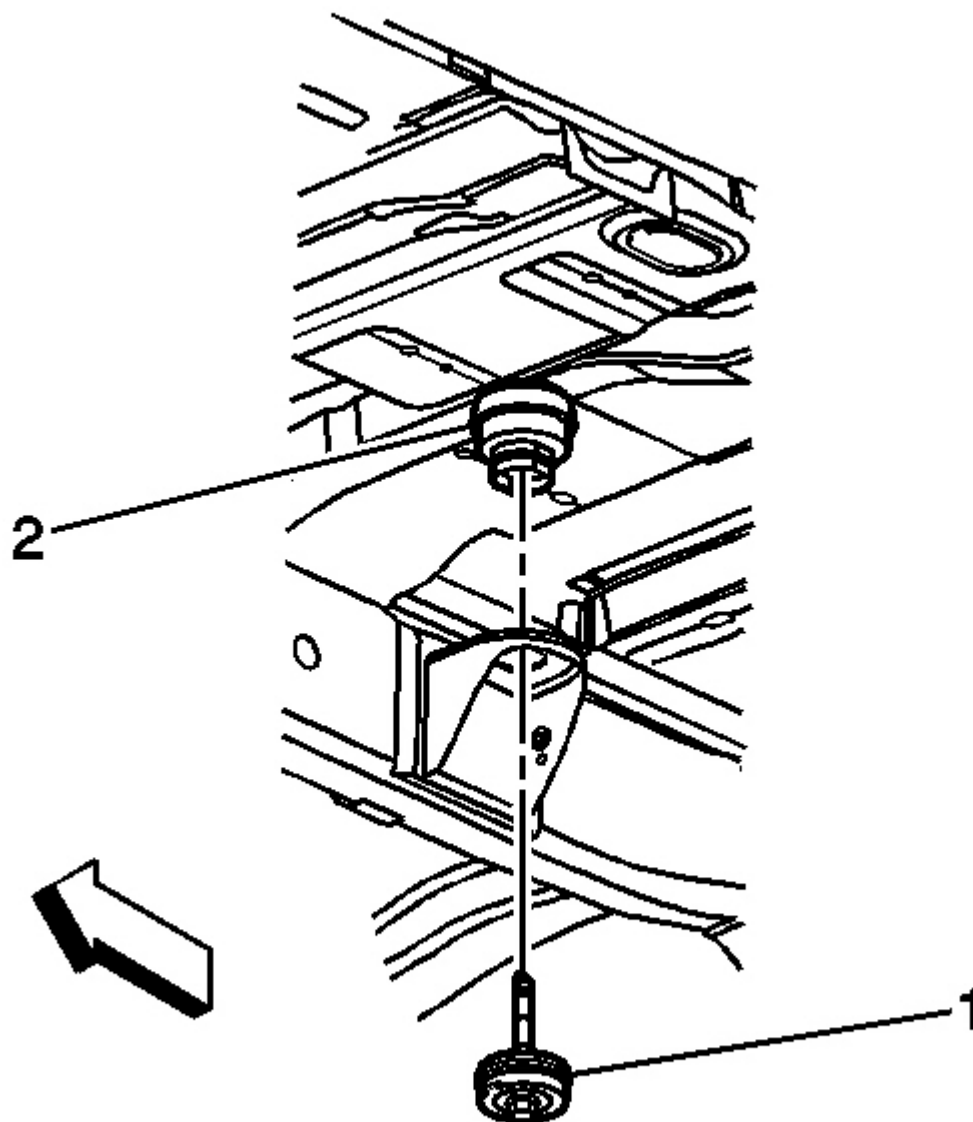
Properly support the frame when you change the body mounts. If only one mount is changed, lower the entire side on which the mount is placed in order to provide clearance for the mount.



**Fig. 23: View Of Body Mount Bolt, Retainer & Lower Cushion**  
Courtesy of GENERAL MOTORS CORP.

1. Raise the vehicle slightly on a hoist. Refer to **Lifting and Jacking the Vehicle** .
2. Place jack stands under the body on the side of the vehicle that the mounts will be placed.
3. Remove the body mount bolt, retainer, and lower cushion (1) from the radiator support.

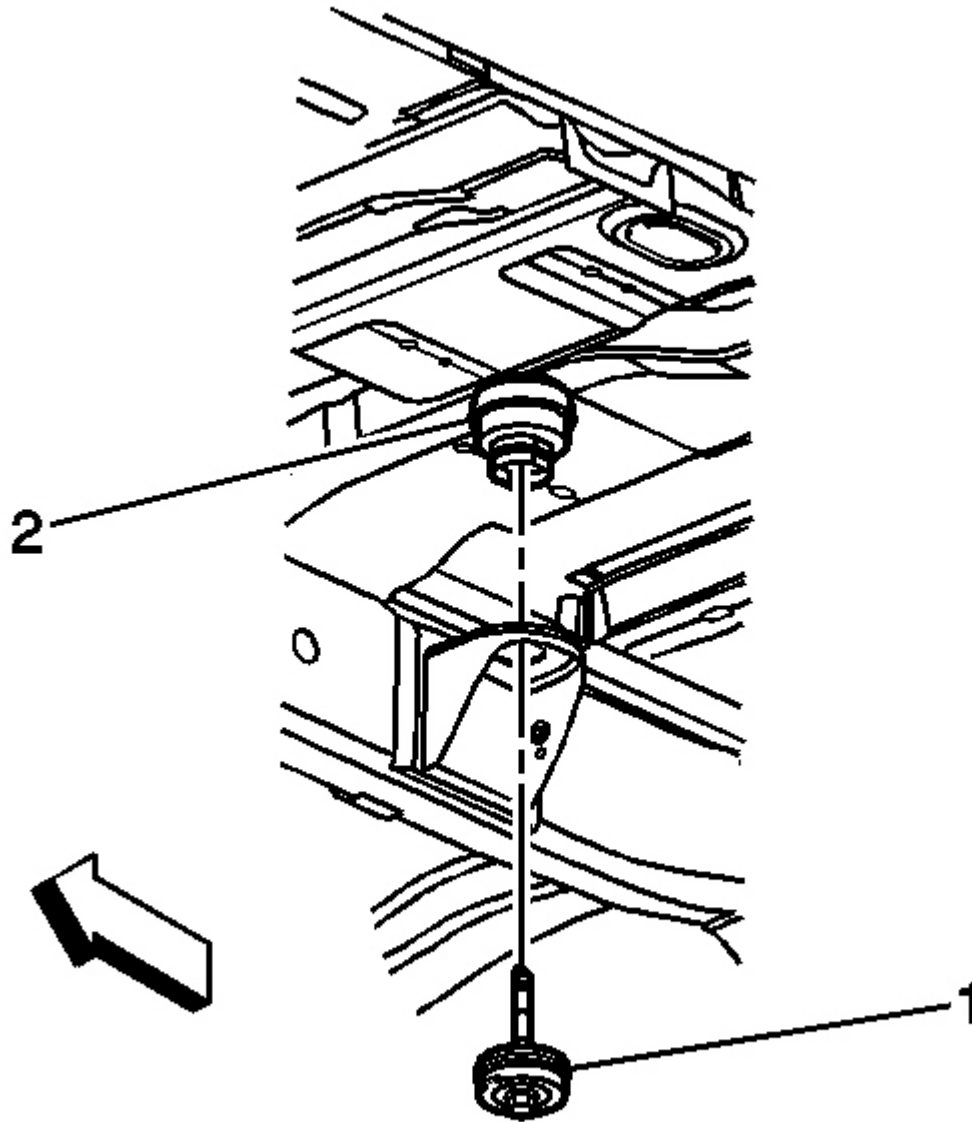




**Fig. 24: View Of Frame Lower Cushions**  
Courtesy of GENERAL MOTORS CORP.

4. Remove the body mount bolts, retainers, and lower cushions (1) from the 5 other mount locations.
5. Lower the hoist enough in order to leave the body supported by the jack stands.
6. Remove the upper cushions (2) from the vehicle.

## Installation Procedure



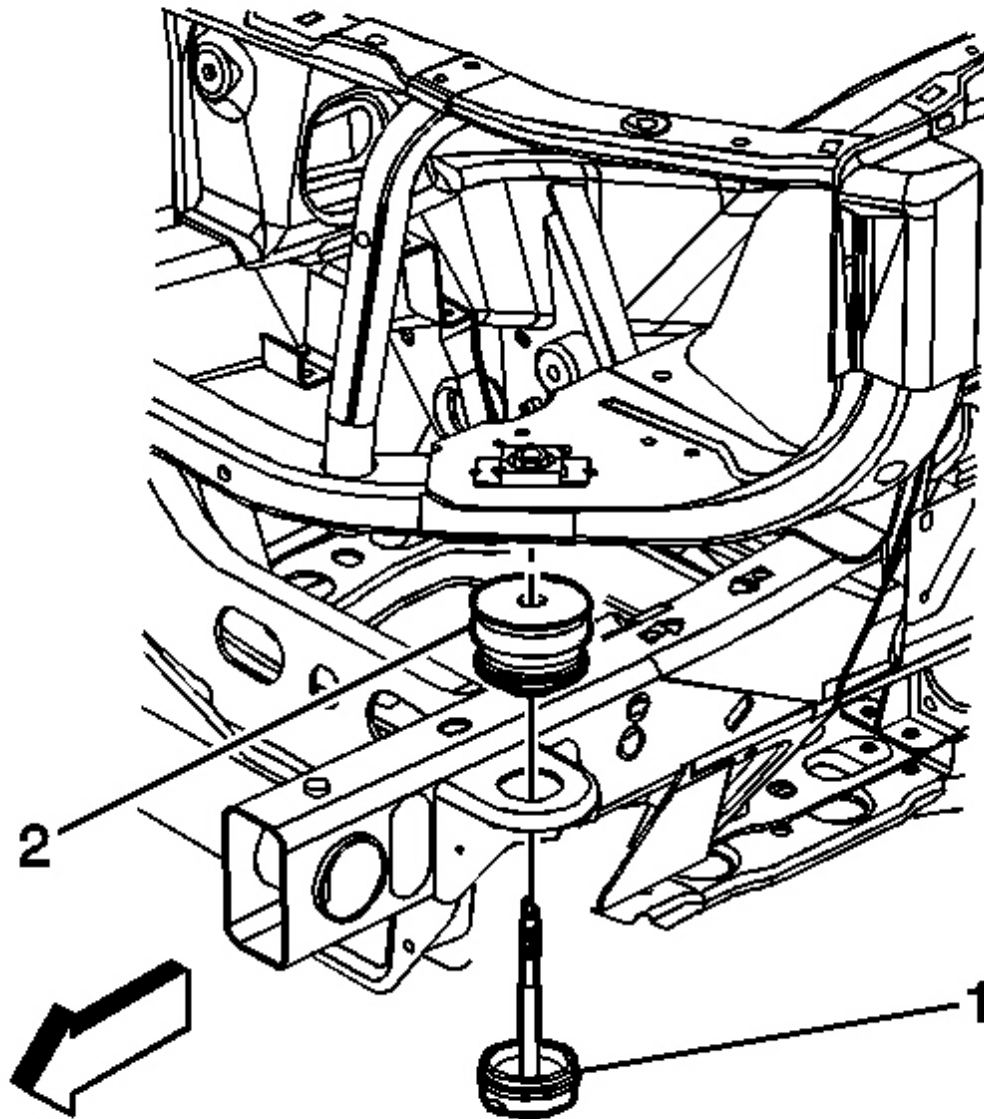
**Fig. 25: View Of Frame Lower Cushions**  
Courtesy of GENERAL MOTORS CORP.

1. Install the upper cushions (2) to the vehicle.
2. Raise the frame slightly on the hoist.

**NOTE:** Refer to Fastener Notice .

3. Install the lower cushions, retainers, and bolts to the 5 body mount locations.

**Tighten:** Tighten the bolts to 82 N.m (60 lb ft).



**Fig. 26: View Of Body Mount Bolt, Retainer & Lower Cushion**

<b>2008 Isuzu Ascender LS</b>
2008 Accessories & Equipment Frame & Underbody - Ascender, Envoy & Trailblazer

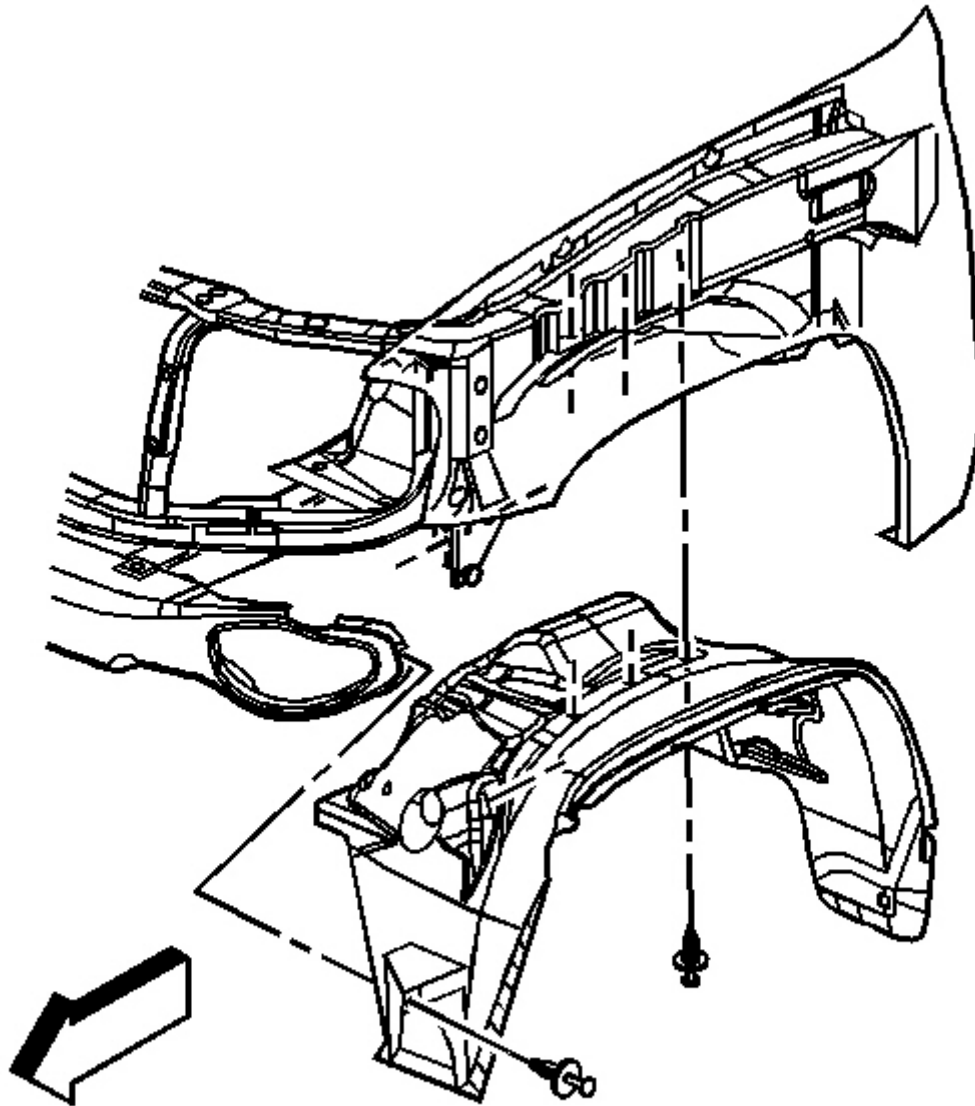
**Courtesy of GENERAL MOTORS CORP.**

4. Install the lower cushion, retainer, and bolt (1) to the radiator support.

**Tighten:** Tighten the bolts to 82 N.m (60 lb ft).

## **WHEELHOUSE PANEL REPLACEMENT (FRONT END)**

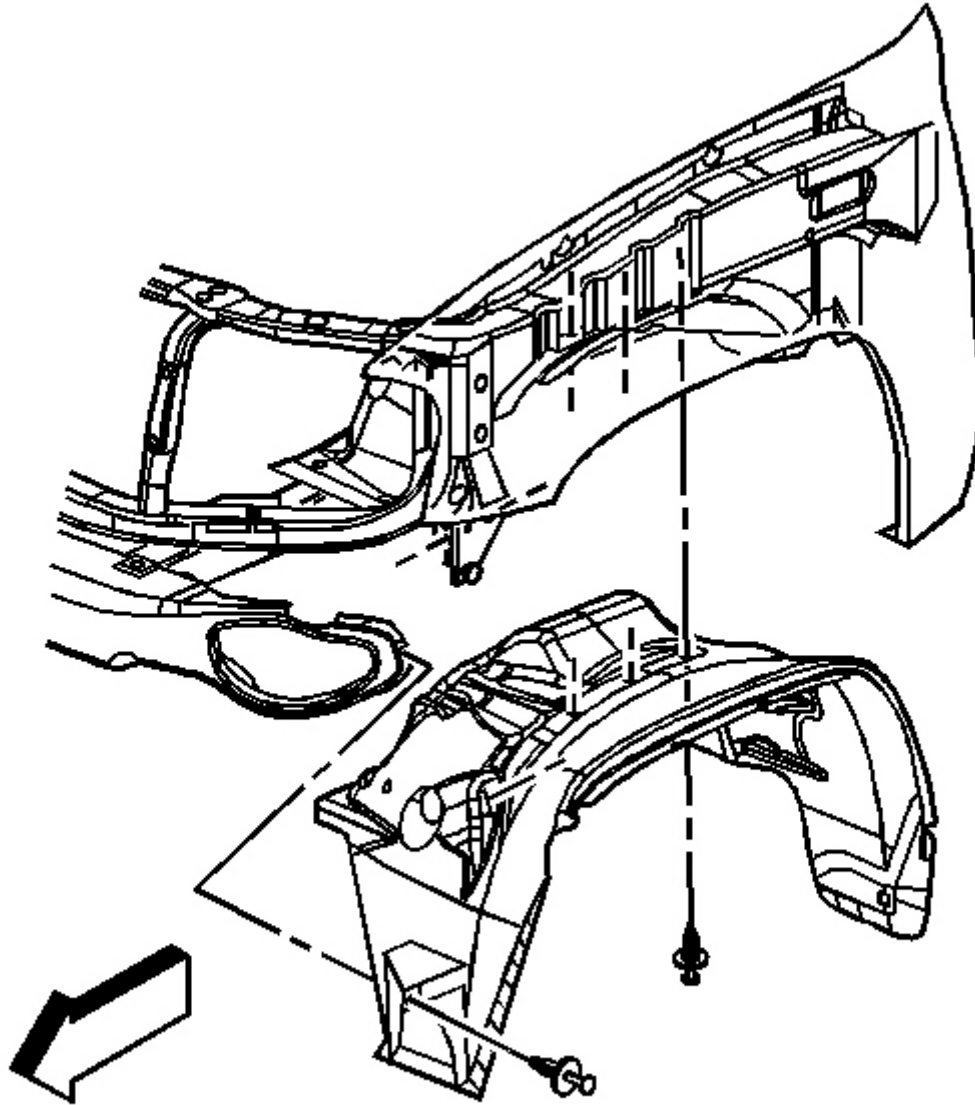
### **Removal Procedure**



**Fig. 27: View Of Wheelhouse Liner, Bolts & Push - Pins**  
**Courtesy of GENERAL MOTORS CORP.**

1. Remove the push-pins from the wheelhouse liner.
2. Remove the bolt that retains the wheelhouse liner to the rocker molding.
3. Remove the wheelhouse liner from the vehicle.

**Installation Procedure**



**Fig. 28: View Of Wheelhouse Liner, Bolts & Push - Pins**  
**Courtesy of GENERAL MOTORS CORP.**

1. Install the wheelhouse liner to the vehicle.
2. Install the push-pins that retain the wheelhouse liner to the body.

## 2008 Isuzu Ascender LS

2008 Accessories & Equipment Frame & Underbody - Ascender, Envoy & Trailblazer

**NOTE:** Refer to Fastener Notice .

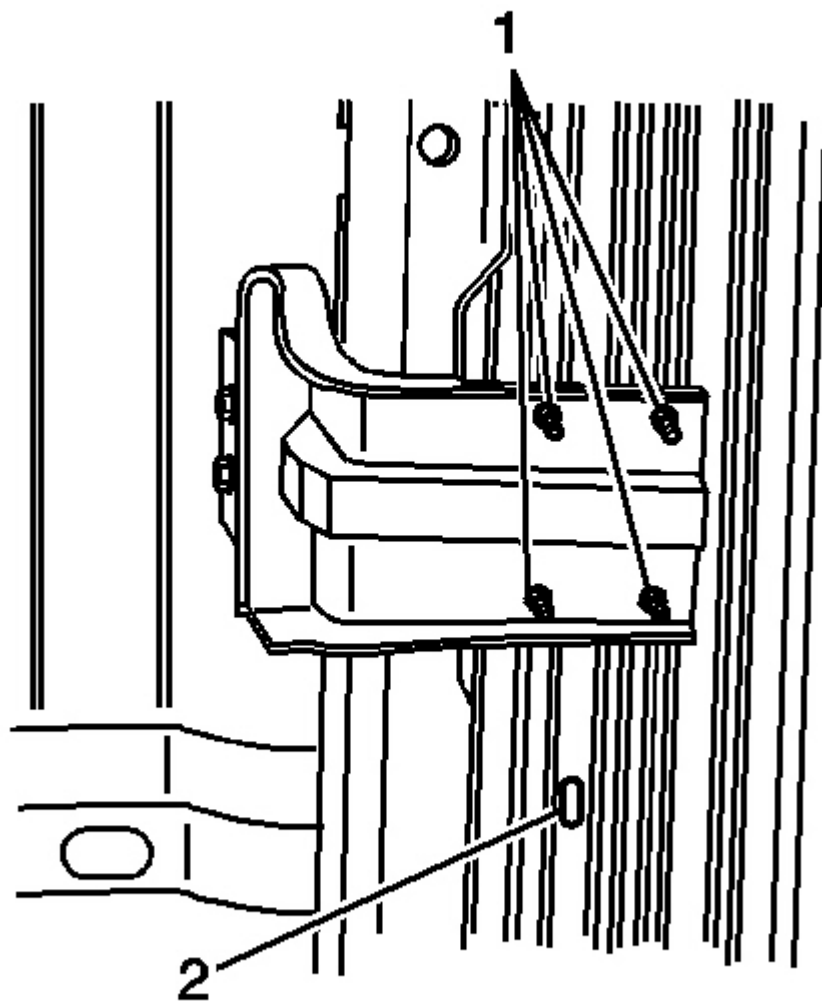
3. Install the bolt that retains the wheelhouse liner to the rocker molding.

**Tighten:** Tighten the bolt to 10 N.m (89 lb in).

### ASSIST STEP REPLACEMENT

#### Removal Procedure

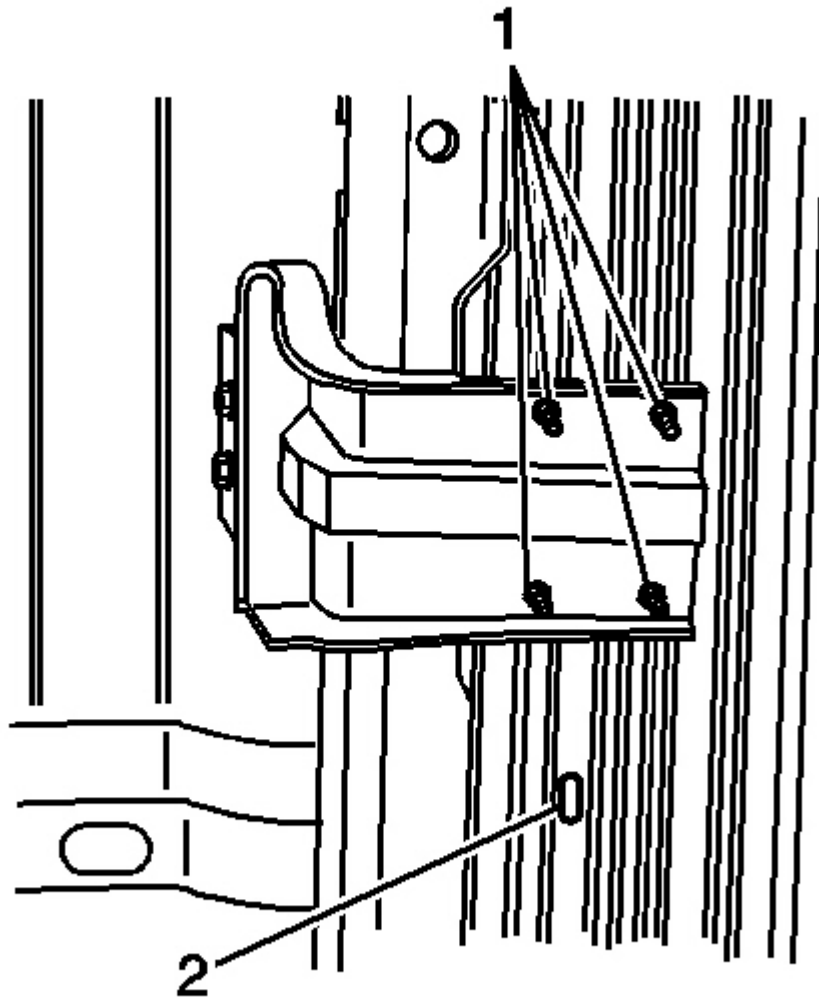
1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .



**Fig. 29: View Of Assist Step Nuts & Fasteners**  
Courtesy of GENERAL MOTORS CORP.

2. Remove the nuts (1) that retain the assist step to the assist step support brackets.
3. Remove the assist step from the support brackets.
4. Place the assist step on a clean, prepared surface.
5. Release the fasteners (2) that retain the assist step pad to the assist step.
6. Remove the assist step pad from the assist step.





**Fig. 30: View Of Assist Step Nuts & Fasteners**  
Courtesy of GENERAL MOTORS CORP.

1. Install the assist step pad to the assist step, ensuring that the fasteners (2) are fully seated.
2. Position the assist step to the vehicle.

**NOTE:** Refer to Fastener Notice .

Install the nuts (1) that retain the assist step to the assist step support brackets.

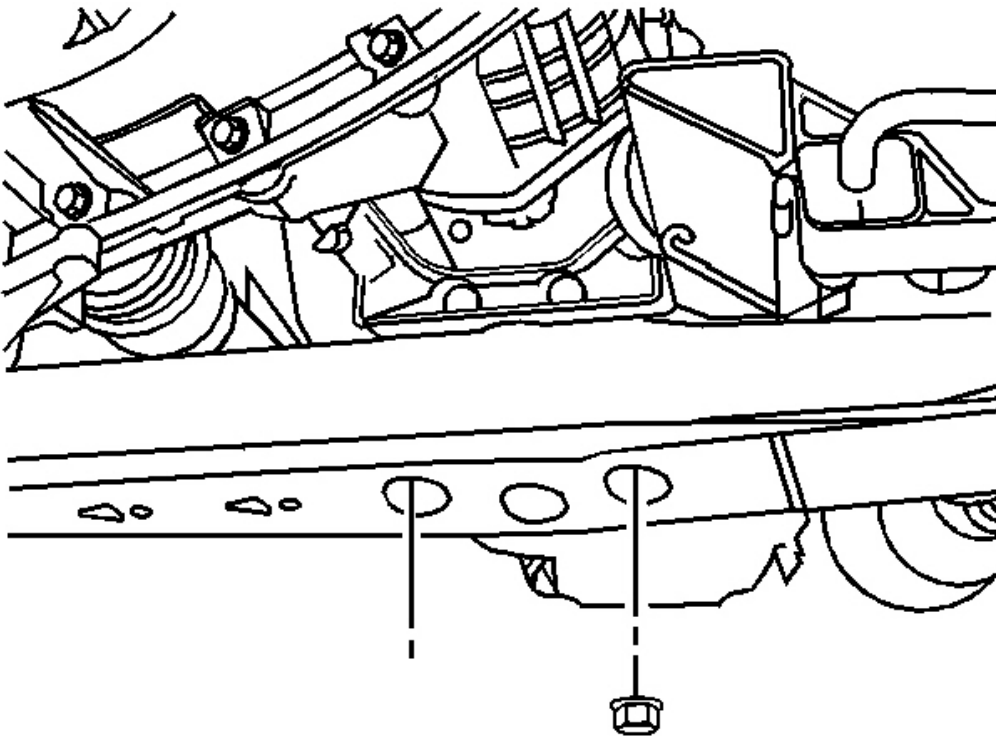
**Tighten:** Tighten the nuts to 25 N.m (18 lb ft).

3. Lower the vehicle. Refer to **Lifting and Jacking the Vehicle** .

## **TRANSMISSION SUPPORT REPLACEMENT**

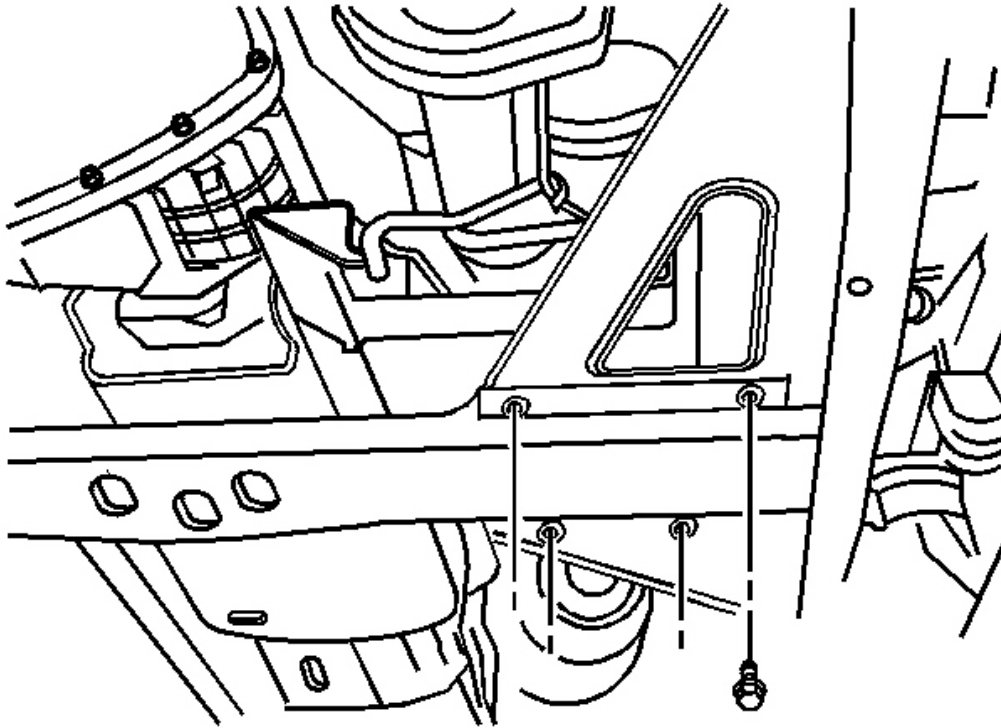
### **Removal Procedure**

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** .
2. Support the transmission with a transmission jack.



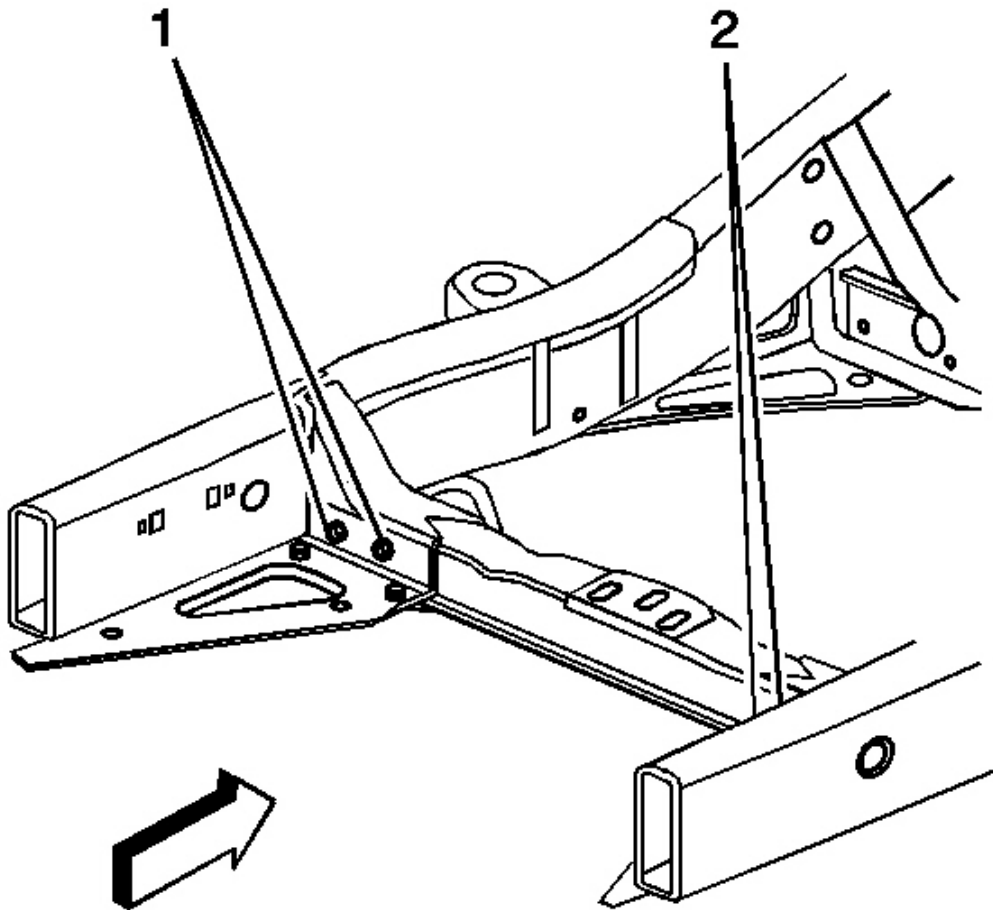
**Fig. 31: View Of Transmission Mount To Transmission Support**  
Courtesy of GENERAL MOTORS CORP.

3. Remove the transmission mount to the transmission support retaining nuts.



**Fig. 32: Identifying Lower Transmission Support to Frame Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

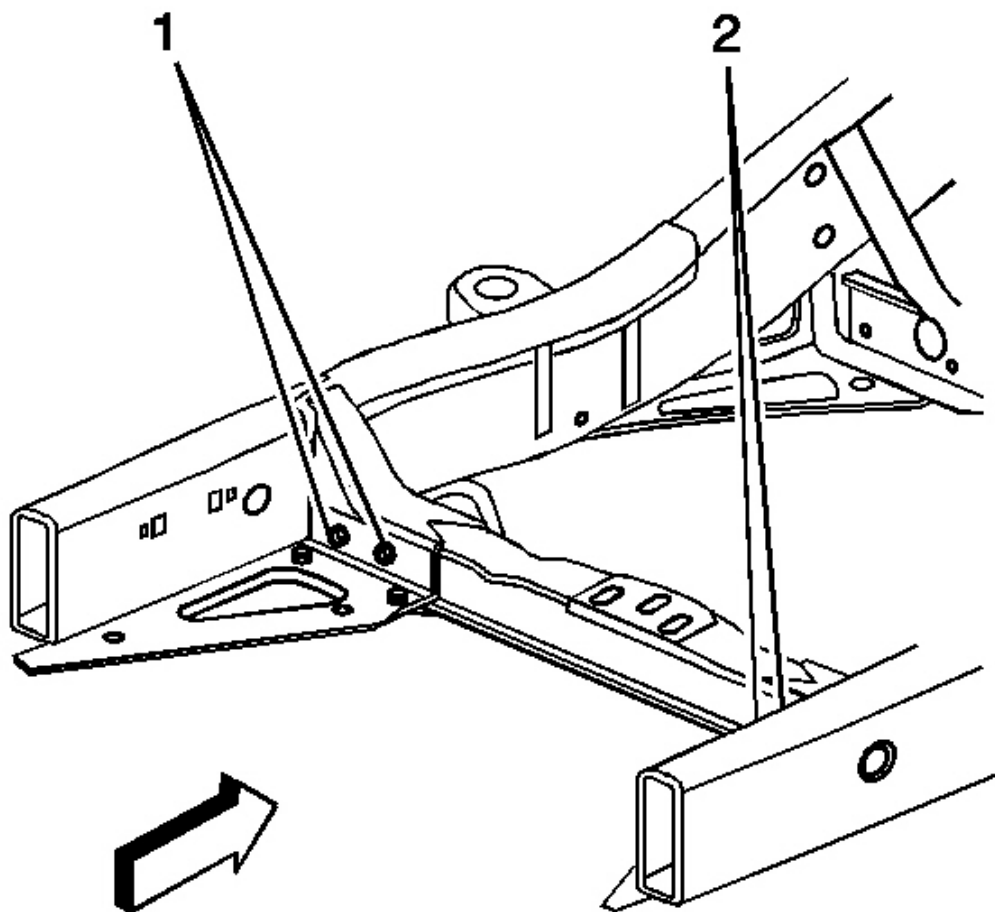
4. Remove the lower transmission support to the frame mounting bolts.



**Fig. 33: View of Upper Transmission Support to Frame Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

5. Remove the upper transmission support to the frame mounting bolts (1, 2).
6. Remove the transmission support from the frame.

#### Installation Procedure



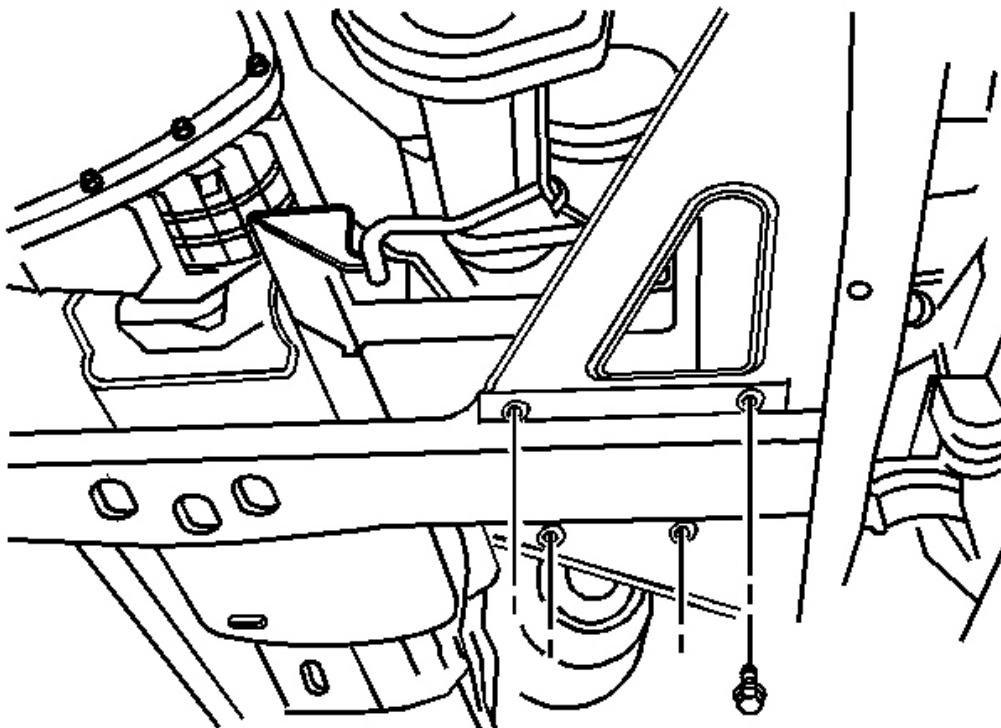
**Fig. 34: View of Upper Transmission Support to Frame Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

1. Install the transmission support to the frame.

**NOTE:** Refer to Fastener Notice .

2. Install the upper transmission support to the frame mounting bolts (1, 2).

**Tighten:** Tighten the upper transmission support to the frame mounting bolts to 80 N.m (59 lb ft).

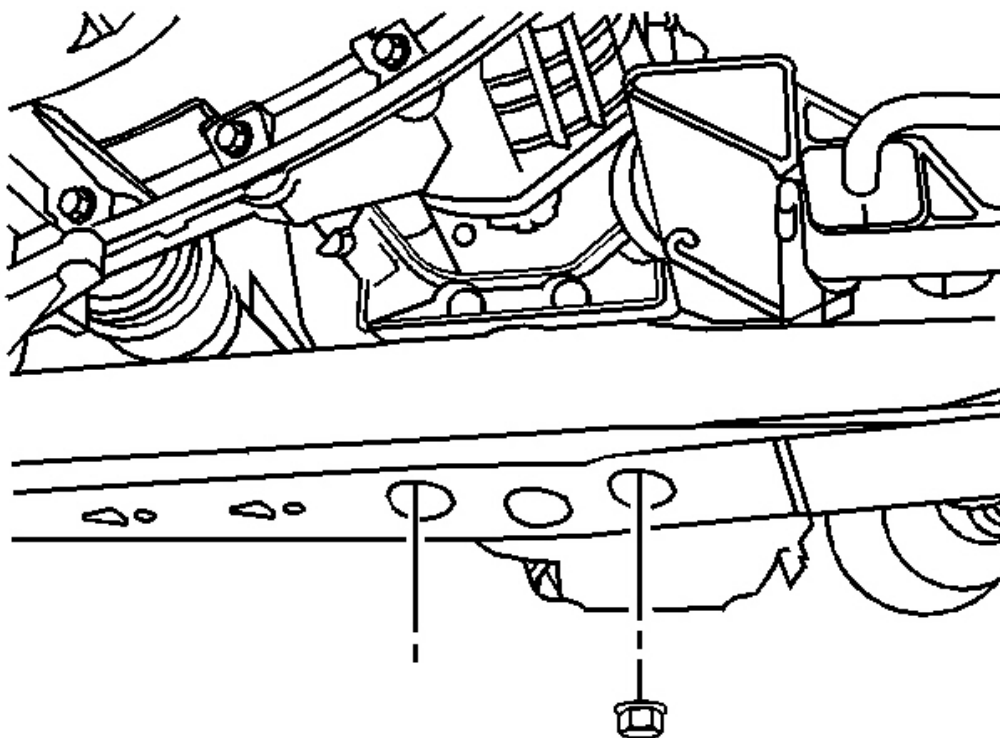


**Fig. 35: Identifying Lower Transmission Support to Frame Mounting Bolts**  
Courtesy of GENERAL MOTORS CORP.

3. Install the lower transmission support to the frame mounting bolts.

**Tighten:** Tighten the bolts to 50 N.m (37 lb ft).

4. Lower the transmission onto the transmission support.



**Fig. 36: View Of Transmission Mount To Transmission Support**  
Courtesy of GENERAL MOTORS CORP.

5. Install the transmission mount to the transmission support retaining nuts.

**Tighten:** Tighten the transmission mount to the transmission support retaining nuts to 46 N.m (35 lb ft).

6. Lower the vehicle.