

2004 RESTRAINTS

Seat Belts - Hummer H2

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Front Seat Belt Buckle Nut	53 N.m	39 lb ft
Front Seat Retractor Bolt	53 N.m	39 lb ft
Front Seat Upper Anchor Bolt	53 N.m	39 lb ft
Outboard Seat Belt Anchor Nut	53 N.m	39 lb ft
Rear Seat Belt Buckle Bolt	55 N.m	41 lb ft
Rear Seat Belt Latch Cover Screw	2 N.m	18 lb ft
Rear Seat Belt Retractor Bolts	55 N.m	41 lb ft
Rear Seat Belt to Body Bolt	55 N.m	41 lb ft
Retractor Tower Screw	2 N.m	18 lb ft

SCHEMATIC AND ROUTING DIAGRAMS

SEAT BELT SCHEMATIC ICONS

Seat Belt Schematic Icons

Icon	Icon Definition
	CAUTION: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Refer to SIR Disabling and Enabling Zones. Failure to observe the correct procedure could cause deployment of the SIR components, personal injury, or unnecessary SIR system repairs.



SEAT BELT SCHEMATICS

L O C

D E S C

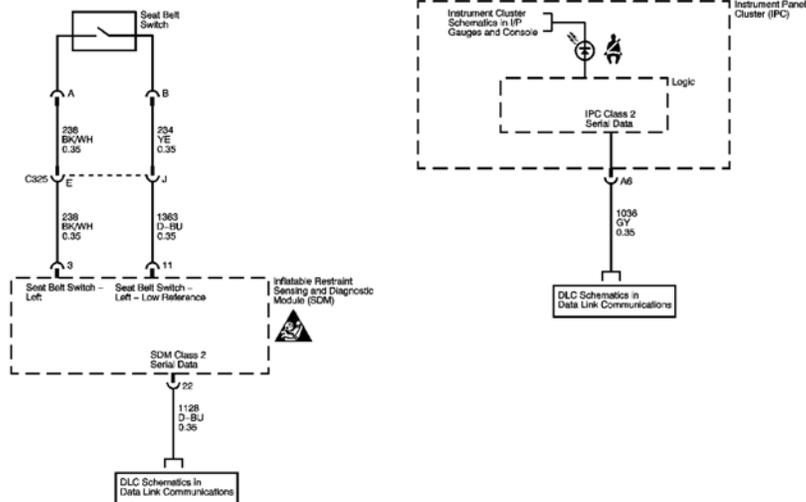


Fig. 1: Seat Belt
Courtesy of GENERAL MOTORS CORP.

COMPONENT LOCATOR

SEAT BELT COMPONENT VIEWS

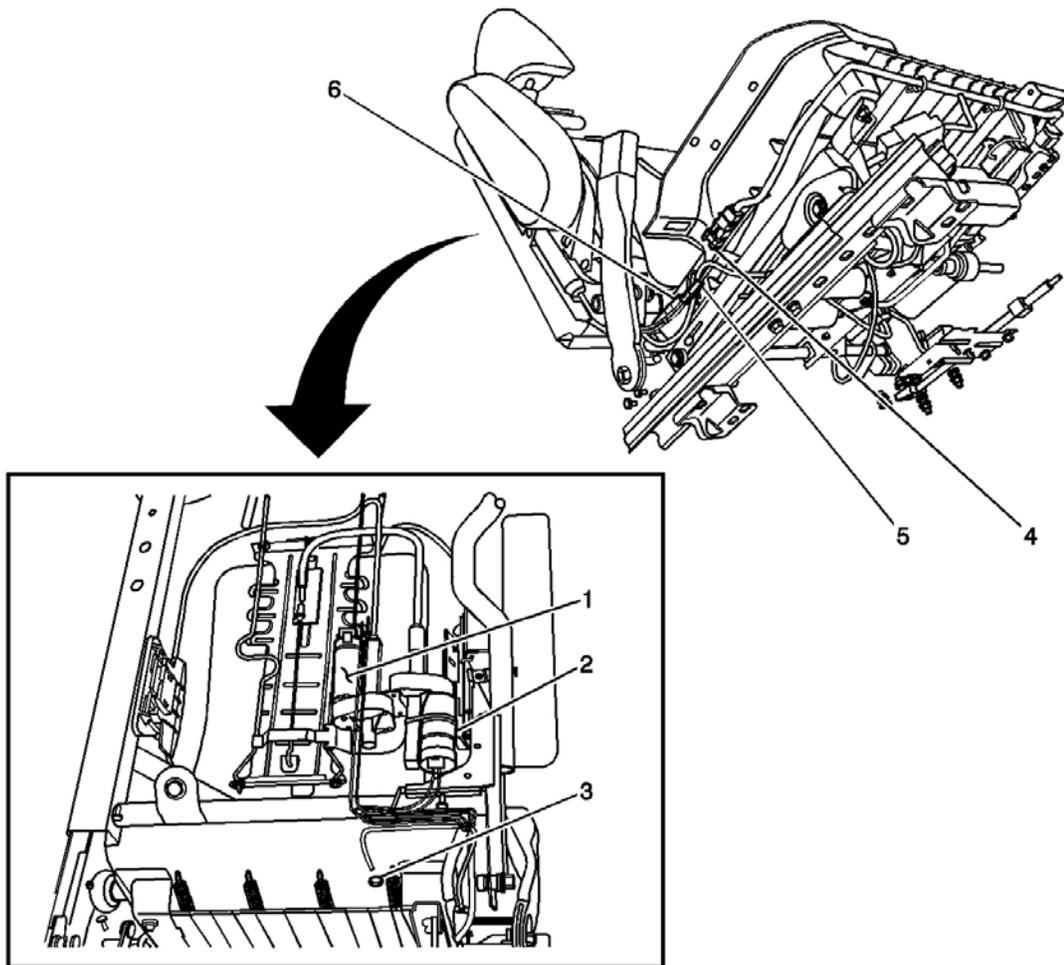


Fig. 2: Seat Belt Switch Component Views
 Courtesy of GENERAL MOTORS CORP.

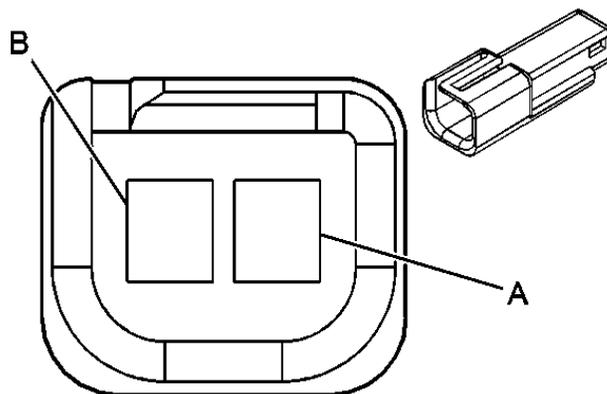
Callouts For Fig. 2

Callout	Component Name
1	Seat Bolster Motor - Driver
2	Seat Lumbar Motor - Driver
3	Heated Seat Element - Driver Cushion
4	C333
5	Seat Belt Switch Connector
6	Heated Seat Element - Driver Cushion Connector

SEAT BELT CONNECTOR END VIEWS

Seat Belt Terminal Identification Switch

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Connector Part Information		<ul style="list-style-type: none"> • 12047663 • 2-Way M Metri-Pack 150 Series Sealed (BK) 	
Pin	Wire Color	Circuit No.	Function
A	BK/WH	238	Seat Belt Switch-Left
B	YE	234	Seat Belt Indicator Control

DIAGNOSTIC INFORMATION AND PROCEDURES

DIAGNOSTIC STARTING POINT - SEAT BELTS

Begin the system diagnosis by reviewing the **Seat Belt System Description and Operation** . Reviewing the Description and Operation will help identify the correct symptom diagnostic procedure when a malfunction exists. The Description and Operation will also assist in determining if the condition described by the customer is normal system operation. Refer to **Symptoms - Seat Belts** in order to identify the correct procedure for diagnosing the system and where the procedure is located.

OPERATIONAL AND FUNCTIONAL CHECKS

IMPORTANT: If the vehicle has been in a collision, refer to Repairs and Inspections Required After a Collision for additional information.

Perform the following inspection from the driver seat:

1. Turn the ignition switch to the ON position. Verify proper operation of the seat belt reminder lamp with the belt buckled and with the belt unbuckled.
2. Inspect the shoulder belt guide in order to ensure that the following conditions are met:
 - The shoulder belt guide swivels freely.
 - The seat belt webbing is seated flatly in the guide slot.

- The seat belt webbing does not bind.
3. Verify that the seat belt buckle faces inboard and is accessible.
 4. Verify that the seat belt retractor units are securely attached.
 5. Verify that the seat belt anchor bolts are secure.
 6. Fully extend the seat belt webbing. Verify that the seat belt webbing does not have any twists or tears.
 7. Allow the seat belt webbing to retract. Verify that the seat belt webbing returns freely and completely back into the retractor.
 8. Snap the seat belt latch plate into the buckle.
 9. Sharply tug on the seat belt latch plate and the buckle. Verify that the seat belt latch plate and the buckle remain locked when tugged.
 10. Push the button on the buckle.
 - Verify that the seat belt latch plate releases easily from the buckle.
 - Verify that the button returns to its original position.

Repeat the inspection procedure, steps 2-10, from the front passenger seat.

Test the function of the automatic locking child restraint feature:

1. To engage the automatic locking feature, pull the belt to the fully extended position. Allow the belt to retract to the proper position for the child seat and fasten the latch plate to the buckle. As the belt retracts, a ratcheting sound should be heard.
2. To disengage the automatic locking feature, allow the belt to retract to the fully stowed position. Before the belt is completely stowed, the cinch feature will reset, the ratcheting sound will stop and the belt will extract freely.

Perform the following steps in order to inspect the center seat belts:

1. Verify that the center seat belts are accessible.
2. Verify that the center seat belts have no twists or tears in the webbing.
3. Snap the center seat belt latch plate into the buckle.
4. Sharply tug on the seat belt latch plate and the buckle. Verify that the seat belt latch plate and the buckle remain locked when tugged.
5. Push the button on the buckle.
 - Verify that the seat belt latch plate releases easily from the buckle.
 - Verify that the button returns to its original position.

Repeat the inspection procedure, steps 2-10, from the rear seats. The child restraint feature is located on the outboard position for the rear seat.

Repeat the center seat belt inspection procedure, steps 1-5, from the rear seat.

For information on removal of the rear seats cushions refer to **Seat Replacement - Rear No. 1** , **Seat**

Replacement - Rear No. 2 or Seat Cushion Frame Replacement - Rear in Seats.

Emergency Locking Retractors

CAUTION: Perform this test in an area clear of other vehicles or obstructions. Do not conduct this test on the open road. A large, empty parking lot is suitable. Failure to observe this precaution may result in damage to the vehicle and possible personal injury.

1. Fasten the seat belts, an assistant is needed when the retractor under test is not part of the driver seat belt.
2. Accelerate the vehicle slowly to 16 km/h (10 mph) and apply the brakes firmly.
3. Verify that the seat belt locks when braking firmly.
4. If the belt does not lock, proceed with the following steps.
 1. Remove the seat belt retractor assembly.
 2. Tilt the seat belt retractor slowly.

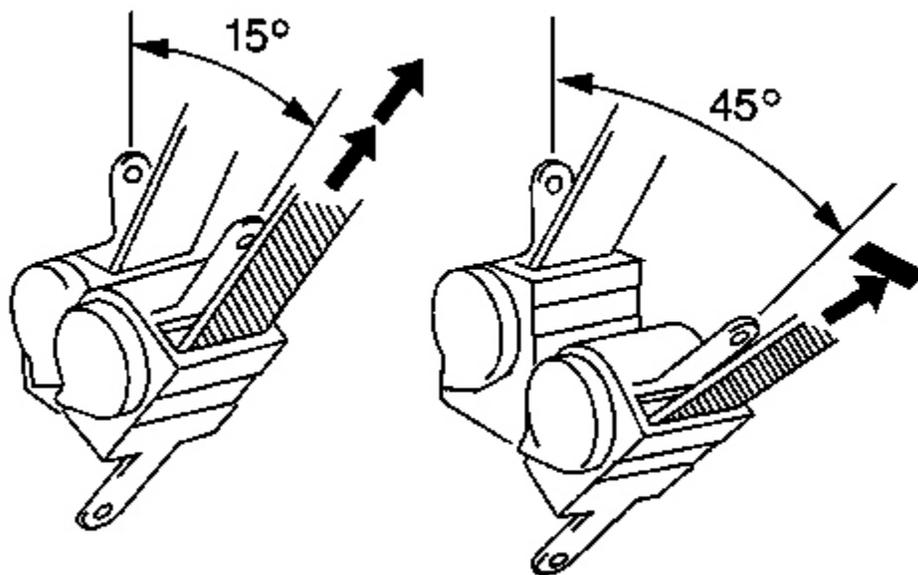


Fig. 3: Tilting Seat Belt Retractor
Courtesy of GENERAL MOTORS CORP.

3. Ensure that the seat belt webbing can be pulled from the retractor at an inclination of 15 degrees or less and cannot be pulled from the retractor at an inclination of 45 degrees or more.

4. If the seat belt retractor does not operate as described, replace the retractor assembly. Refer to the following procedures:

- **Seat Belt Retractor Replacement - Left Front**
- **Seat Belt Retractor Replacement - Right Front** .
- **Seat Belt Retractor Replacement - No. 1 Rear**

SYMPTOMS - SEAT BELTS

IMPORTANT: Review the Seat Belt System Description and Operation in order to familiarize yourself with the system functions. Refer to **Seat Belt System Description and Operation** .

Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the Seat Belt System. Refer to **Checking Aftermarket Accessories** in Wiring Systems.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

Symptom List

Refer to a symptom diagnostic procedure from the following list in order to diagnose the symptom:

- **Fasten Safety Belt Indicator/Chime Always On**
- **Fasten Safety Belt Indicator/Chime Inoperative**

FASTEN SAFETY BELT INDICATOR/CHIME ALWAYS ON

Fasten Safety Belt Indicator/Chime Always On

Step	Action	Yes	No
Schematic Reference:Seat Belt Schematics			
Connector End View Reference:Seat Belt Connector End Views			
1	Did you review the Diagnostic Starting Point - Seat Belts?	Go to Step 2	Go to <u>Diagnostic Starting Point - Seat Belts</u>
2	Did you perform the Diagnostic System Check - Instrument Cluster?	Go to Step 3	Go to <u>Diagnostic System Check - Instrument Cluster</u>
	1. Install a scan tool. 2. Turn ON the ignition, with the engine OFF.		

3	<ol style="list-style-type: none"> 3. Fasten the LF seat belt. 4. With a scan tool, observe the seat belt buckled parameter in the instrument panel cluster (IPC) data list. <p>Does the scan tool indicate that the seat belt is buckled?</p>	Go to Step 8	Go to Step 4
4	<ol style="list-style-type: none"> 1. Disconnect the LF seat belt switch connector. 2. With a scan tool, observe the seat belt buckled parameter in the instrument panel cluster (IPC) data list. <p>Does the seat belt parameter change state?</p>	Go to Step 5	Go to Step 6
5	<p>Replace the LF seat belt switch. Refer to <u>Seat Belt Buckle Replacement - Front</u> .</p> <p>Did you complete the replacement?</p>	Go to Step 9	-
6	<p>Test the signal circuit of the seat belt switch for a short to ground. Refer to <u>Circuit Testing</u> and <u>Wiring Repairs</u> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to Step 9	Go to Step 7
7	<p>Replace the inflatable restraint sensing and diagnostic module (SDM). Refer to <u>Inflatable Restraint Sensing and Diagnostic Module Replacement</u></p> <p>Did you complete the replacement?</p>	Go to Step 9	-
8	<p>Replace the IPC. Refer to <u>Instrument Panel Cluster (IPC) Replacement</u> in Instrument Panel, Gauges and Console.</p> <p>Did you complete the replacement?</p>	Go to Step 9	-
9	<p>Operate the system in order to verify the repair.</p> <p>Did you correct the condition?</p>	System OK	Go to Step 2

FASTEN SAFETY BELT INDICATOR/CHIME INOPERATIVE

Fasten Safety Belt Indicator/Chime Inoperative

Step	Action	Yes	No
Schematic Reference:Seat Belt Schematics			
Connector End View Reference:Seat Belt Connector End Views			
1	Did you review the Diagnostic Starting Point - Seat Belts?	Go to Step 2	Go to <u>Diagnostic Starting Point - Seat Belts</u>
2	Did you perform the Diagnostic System Check - Instrument Cluster ?	Go to Step 3	Go to <u>Diagnostic System Check - Instrument Cluster</u>
	<ol style="list-style-type: none"> 1. Turn ON the ignition, with the engine OFF. 2. Observe the seat belt indicator illumination during 		

3	bulb check. Does the seat belt indicator illuminate during bulb check?	Go to Symptoms - Seat Belts	Go to Step 4
4	1. Install a scan tool. 2. Unfasten the LF seat belt. 3. With a scan tool, observe the seat belt buckled parameter in the instrument panel cluster (IPC) data list. Does the scan tool indicate that the seat belt is unbuckled?	Go to Step 5	Go to Step 6
5	Replace the IPC. Refer to Instrument Panel Cluster (IPC) Replacement in Instrument Panel, Gauges and Console. Did you complete the replacement?	Go to Step 11	-
6	1. Disconnect the LF seat belt switch connector. 2. With a scan tool, observe the seat belt buckled parameter in the instrument panel cluster (IPC) data list. Does the seat belt parameter change state?	Go to Step 7	Go to Step 8
7	Replace the LF seat belt switch. Refer to Seat Belt Buckle Replacement - Front . Did you complete the replacement?	Go to Step 11	-
8	Test the signal circuit of the seat belt switch for an open or high resistance. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	Go to Step 11	Go to Step 9
9	Test the ground circuit of the seat belt switch for an open or high resistance. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	Go to Step 11	Go to Step 10
10	Replace the inflatable restraint sensing and diagnostic module (SDM). Refer to Inflatable Restraint Sensing and Diagnostic Module Replacement Did you complete the replacement?	Go to Step 11	-
11	Operate the system in order to verify the repair. Did you correct the condition?	System OK	Go to Step 2

SEAT BELT SERVICE PRECAUTIONS

IMPORTANT: If the vehicle has been in a collision, refer to Repairs and Inspections Required After a Collision for additional information.

- Do not bleach or dye the seat belt webbing. Use only the following items in order to clean the seat belt webbing:
 - A mild soap and water solution
 - A soft brush or cloth
- Keep sharp edges and damaging objects away from the seat belts. Do not bend or damage any part of the seat belt buckle or the latch plate. Replace any seat belts that are cut or damaged in any manner.
- Use only the correct seat belt anchor nuts/bolts. Tighten the correct seat belt anchor nut/bolt/screw to the correct torque value. Refer to **Fastener Tightening Specifications** .
- Some seat belts and retractors require service as a set with service replacement components only. Do not repair individual components that must require service as a set.
- Verify that the replacement part number is correct for the vehicle at that seating position. Do not substitute a seat belt from a different seating position.

REPAIR INSTRUCTIONS

REPAIRS AND INSPECTIONS REQUIRED AFTER A COLLISION

CAUTION: Restraint systems can be damaged in a collision. To help avoid injury and ensure that all parts in need of replacement are replaced:

- **Replace any seat belt system that was in use during the collision serious enough to deploy any automatic restraint device such as air bags and seat belt pretensioners. This not only includes seat belt systems in use by people of adult size, but seat belt systems used to secure child restraints, infant carriers and booster seats, including LATCH system and top tether anchorages.**
- **Replace any seat belt system that has torn, worn, or damaged components. This not only includes adult seat belt systems, but built-in child restraints and LATCH system components, if any.**
- **Replace any seat belt system if you observe the words "REPLACE" or "CAUTION", or if a yellow tag is visible. Do not replace a seat belt if only the child seat caution label is visible.**
- **Replace any seat belt system if you are doubtful about its condition. This not only includes adult seat belt systems, but built-in child restraints, LATCH system components, and any restraint system used to secure infant carriers, child restraints, and booster seats.**

Do NOT replace single seat belt system components in vehicles that have been in a collision as described above. Always replace the entire seat belt system with the buckle, guide and retractor assembly, which includes the latch and webbing material.

After a minor collision where no automatic restraint device was deployed, seat belt system replacement may not

be necessary, unless some of the parts are torn, worn, or damaged.

SEAT BELT BUCKLE REPLACEMENT - FRONT

Removal Procedure

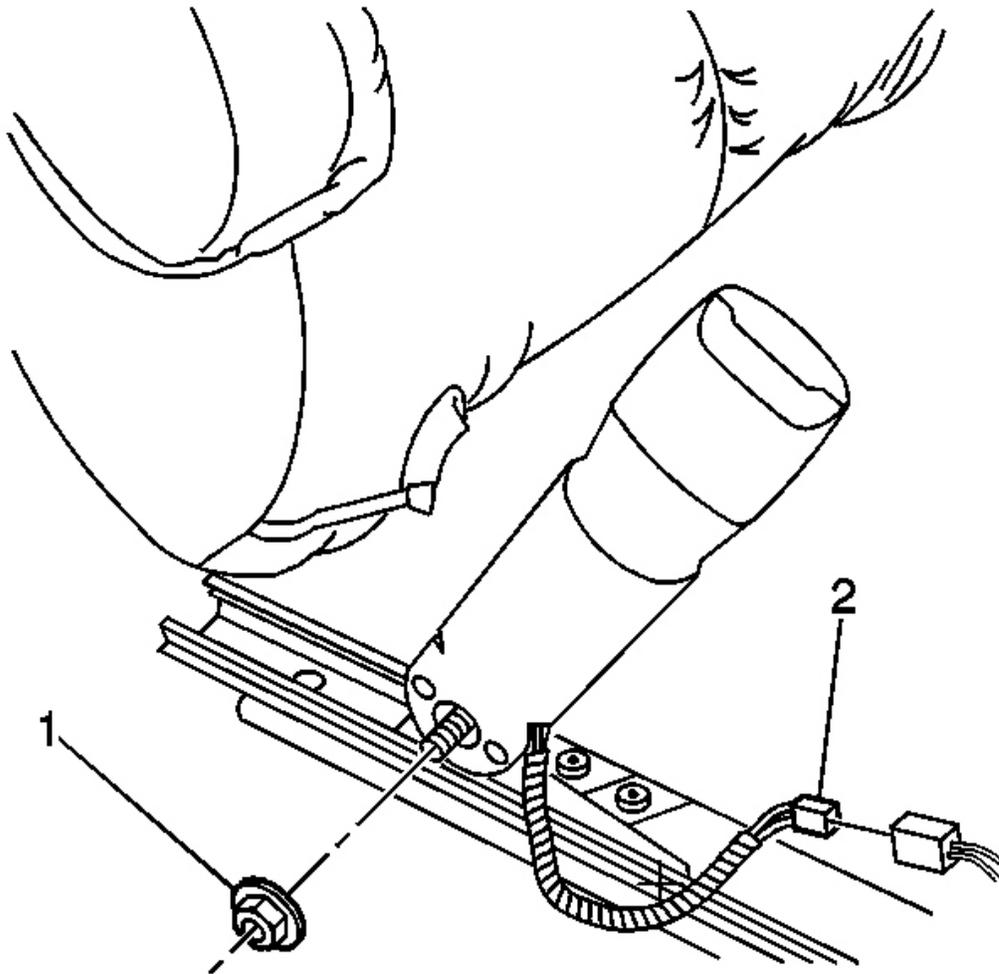


Fig. 4: Inboard Seat Belt Buckle, Nut & Electrical Connection
Courtesy of GENERAL MOTORS CORP.

1. Remove the front seat belt buckle nut (1).

Disconnect the electrical connection (2). The right seat buckle is shown, the left is similar.

2. Remove the seat belt buckle from the vehicle.

Installation Procedure

1. Install the seat belt buckle in the vehicle.
2. Connect the electrical connection (2).

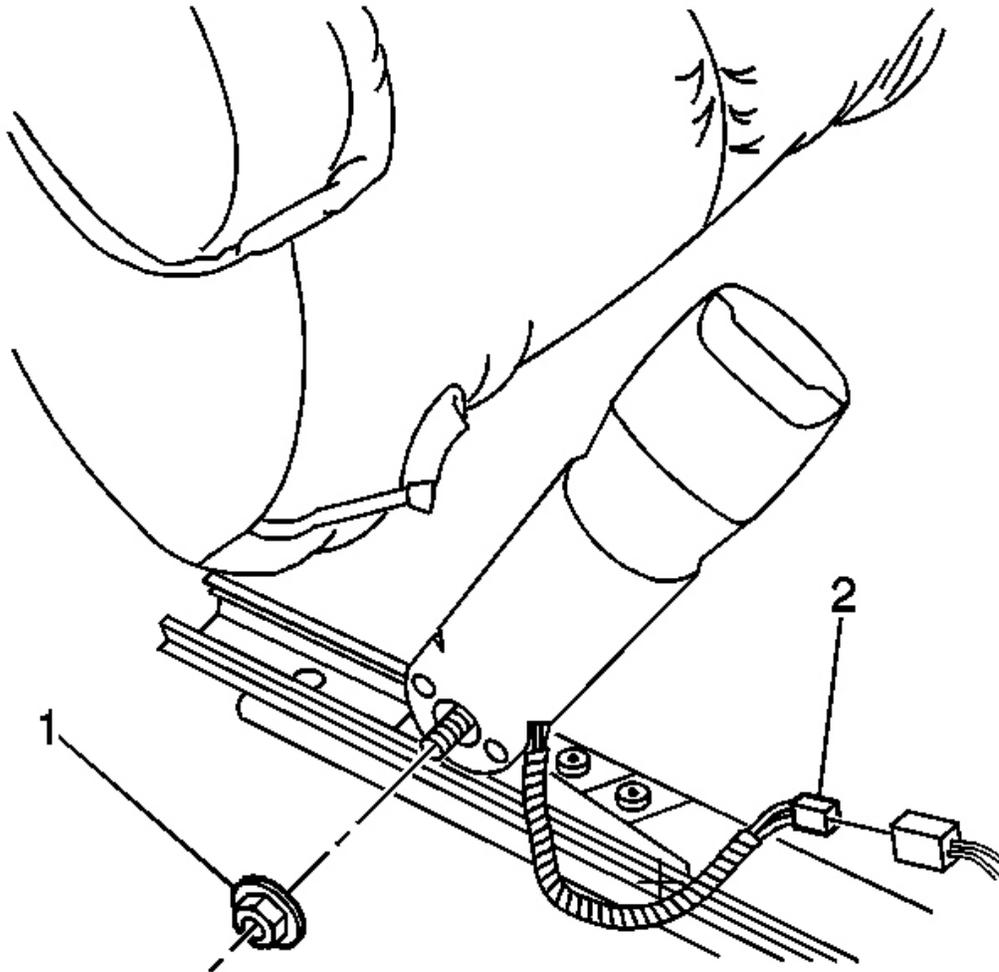


Fig. 5: Inboard Seat Belt Buckle, Nut & Electrical Connection
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the front seat belt buckle nut (1).

Tighten: Tighten the nut to 53 N.m (39 lb ft).

SEAT BELT BUCKLE AND LATCH REPLACEMENT - NO. 2 REAR

Removal Procedure

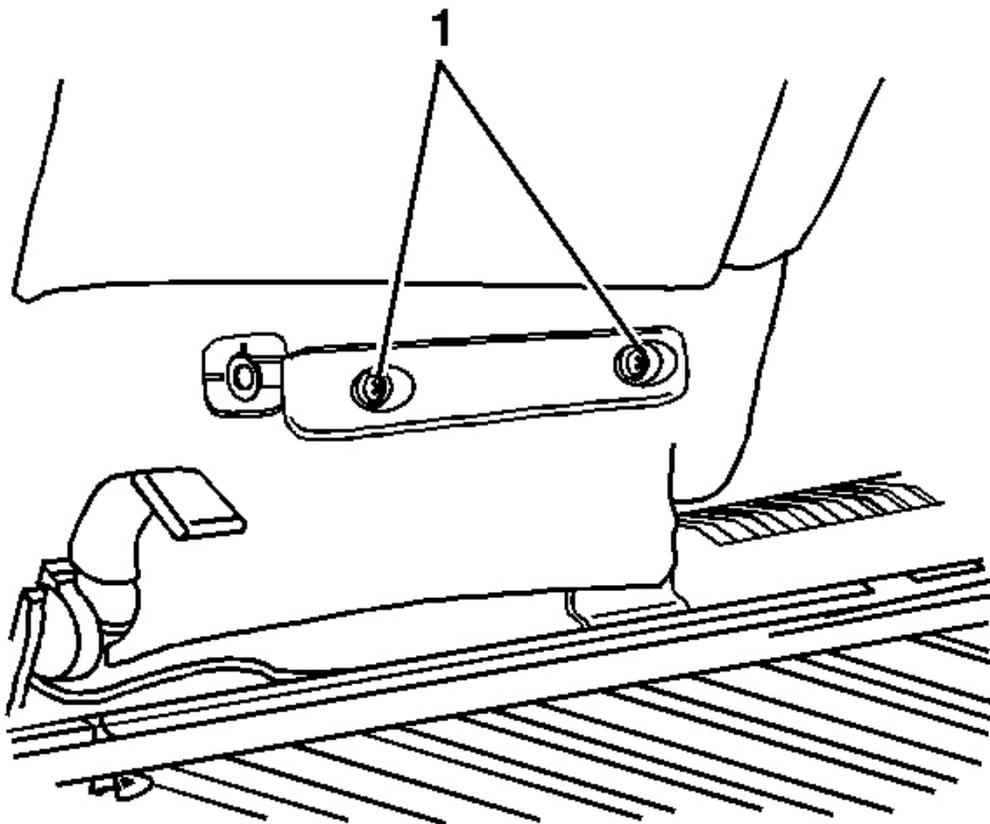


Fig. 6: Handle Mounting Screws
Courtesy of GENERAL MOTORS CORP.

1. Remove the handle mounting screws (1).
2. Partially remove the seat cushion cover by separating the cushion trim J-strips.

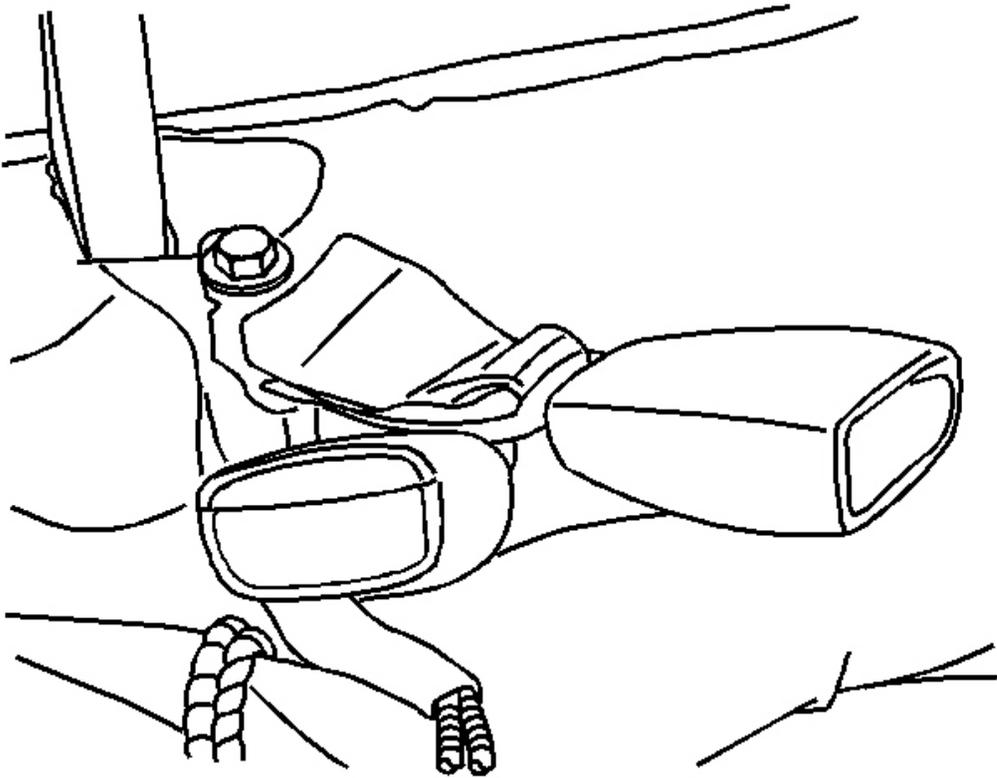


Fig. 7: Seat Belt Buckle & Seat Frame
Courtesy of GENERAL MOTORS CORP.

3. Remove the bolts attaching the buckle to the seat cushion frame.
4. Remove the buckle from the seat frame.

Installation Procedure

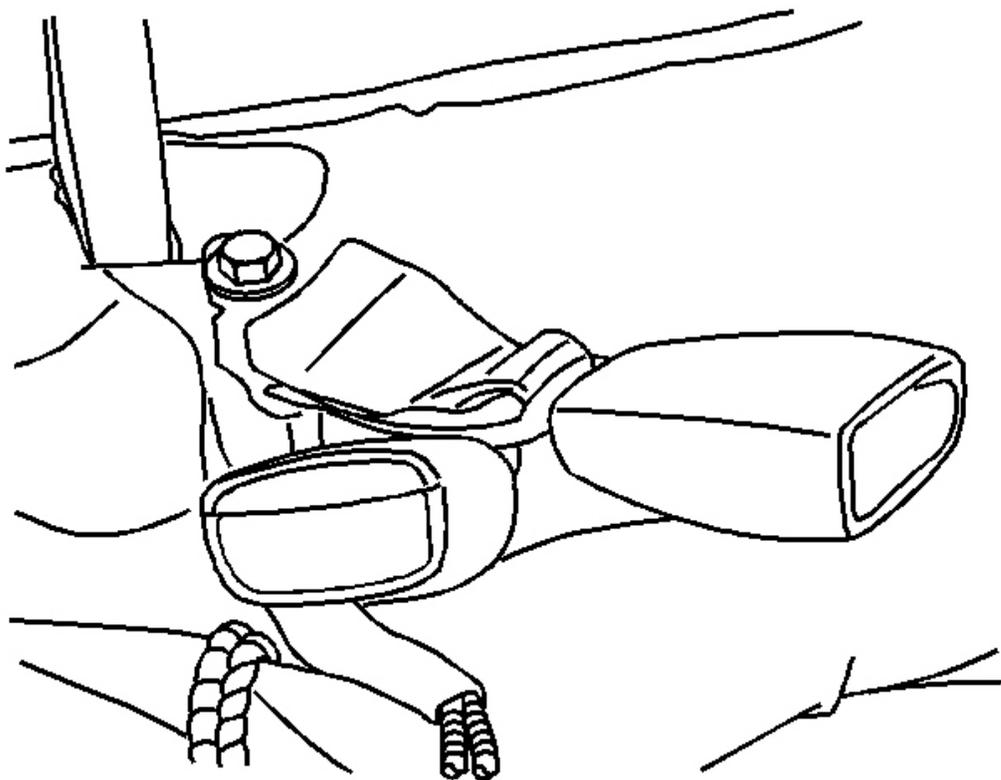


Fig. 8: Seat Belt Buckle & Seat Frame
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

1. Install the buckle to the seat frame.
2. Install the buckle bolts.

Tighten: Tighten the bolts to 53 N.m (39 lb ft).

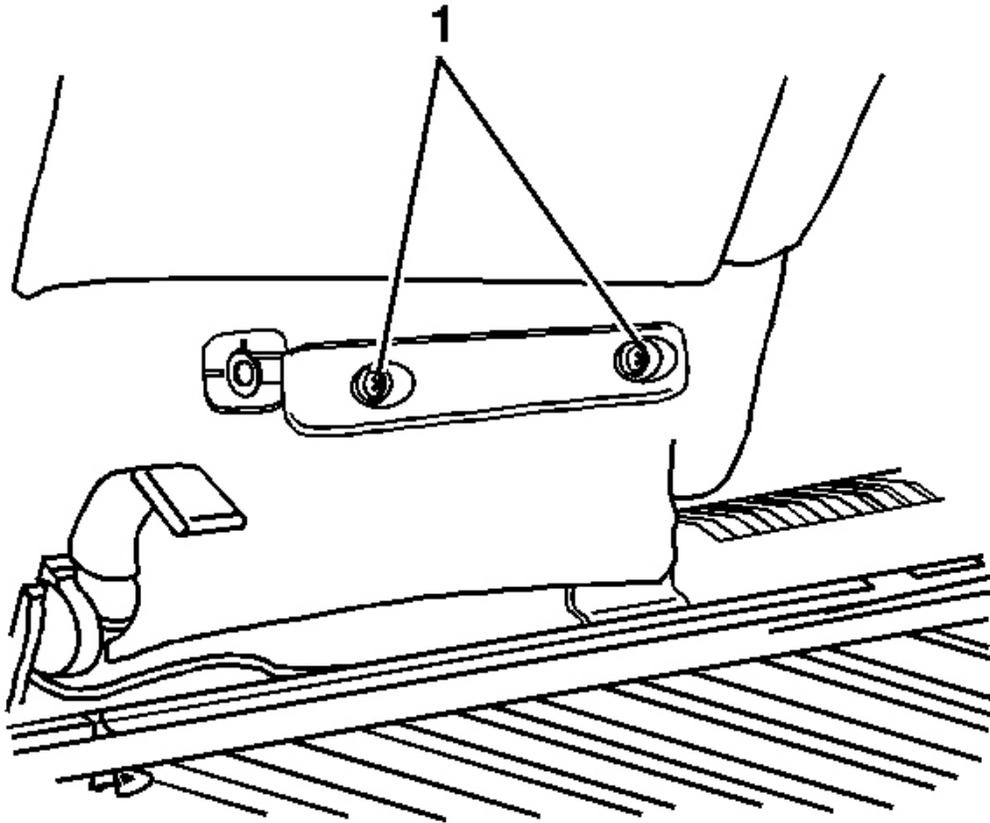


Fig. 9: Handle Mounting Screws
Courtesy of GENERAL MOTORS CORP.

3. Connect the seat cushion cover by joining the cushion J-strips.
4. Install the handle mounting screws.

Tighten: Tighten the screws to 7 N.m (61 lb in).

SEAT BELT RETRACTOR REPLACEMENT - LEFT FRONT

Removal Procedure

1. Move the front seat to the full forward position.

IMPORTANT: Do not remove the seat back cover from the head restraint retainers.

2. Remove the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Front** .
3. Separate the seat foam from the cardboard to gain access to the retainer on the seat belt side.
4. Remove the seat belt side cardboard retainers.
5. Move the cardboard outwards to gain access to the lower seat belt retractor bolt.

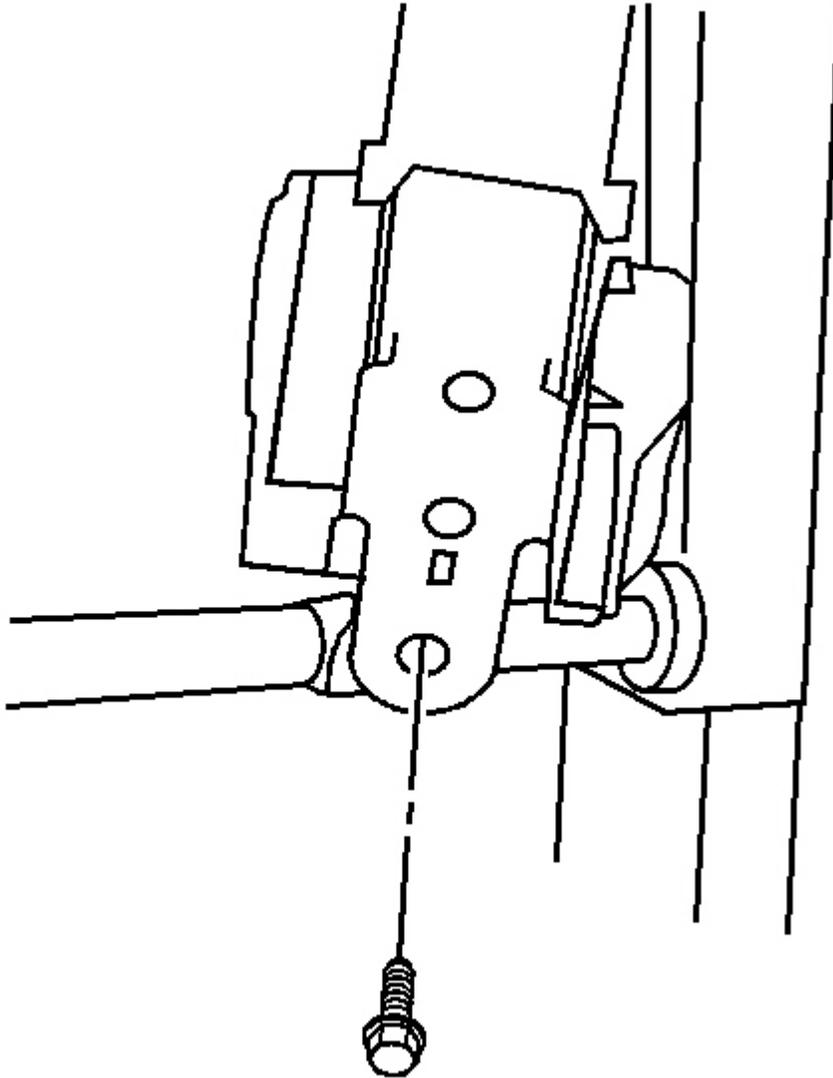


Fig. 10: Lower Seat Belt Retractor Bolt - Left Front
Courtesy of GENERAL MOTORS CORP.

6. Remove the retractor bolt.

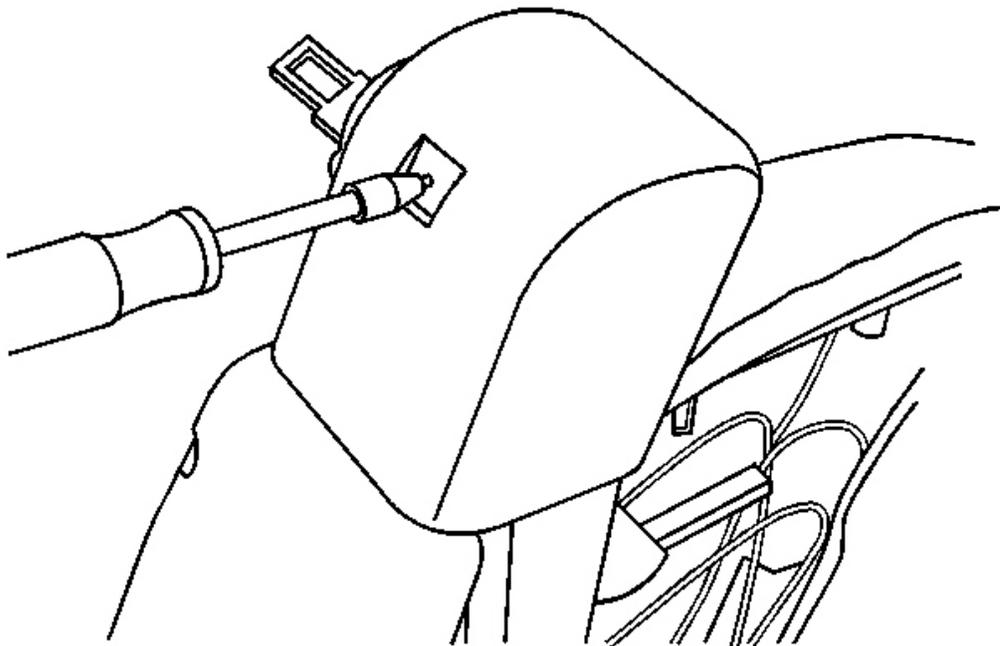


Fig. 11: Retractor Tower Retaining Screw
Courtesy of GENERAL MOTORS CORP.

7. Remove the retractor tower retaining screw.
8. Remove the retractor tower cover.

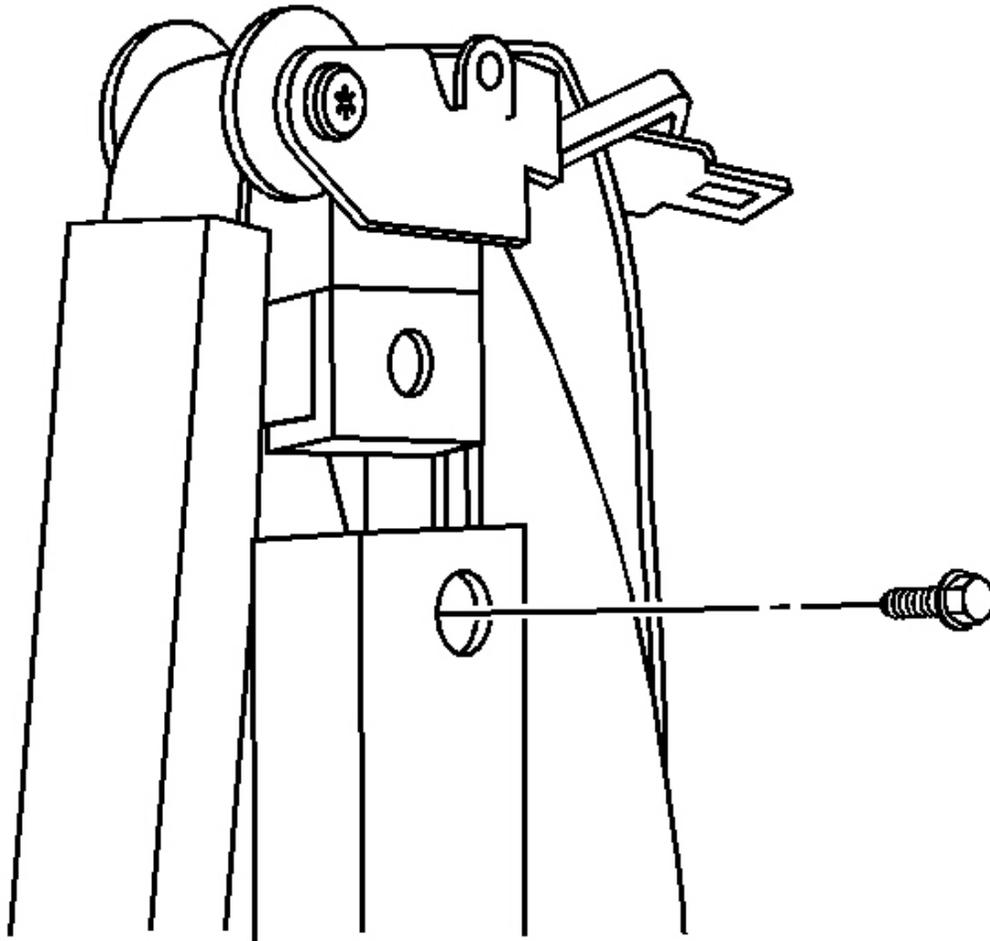


Fig. 12: Upper Anchor Bolt - Right Front
Courtesy of GENERAL MOTORS CORP.

9. Remove the upper anchor bolt.
10. Remove the retractor from the seat.

Installation Procedure

1. Position the seat belt retractor onto the seat.

Line up the tab on the retractor to the tab on the seat frame.

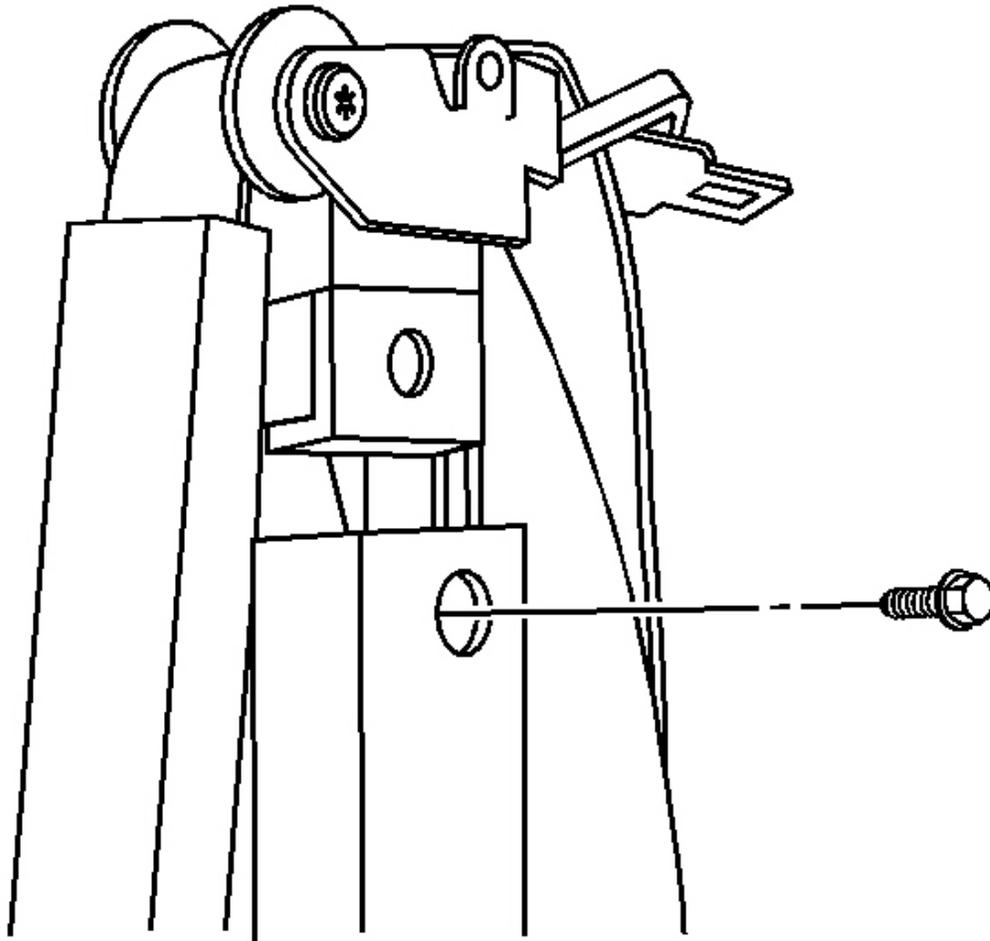


Fig. 13: Upper Anchor Bolt - Right Front
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the upper anchor bolt.

Tighten: Tighten the bolt to 53 N.m (39 lb ft).

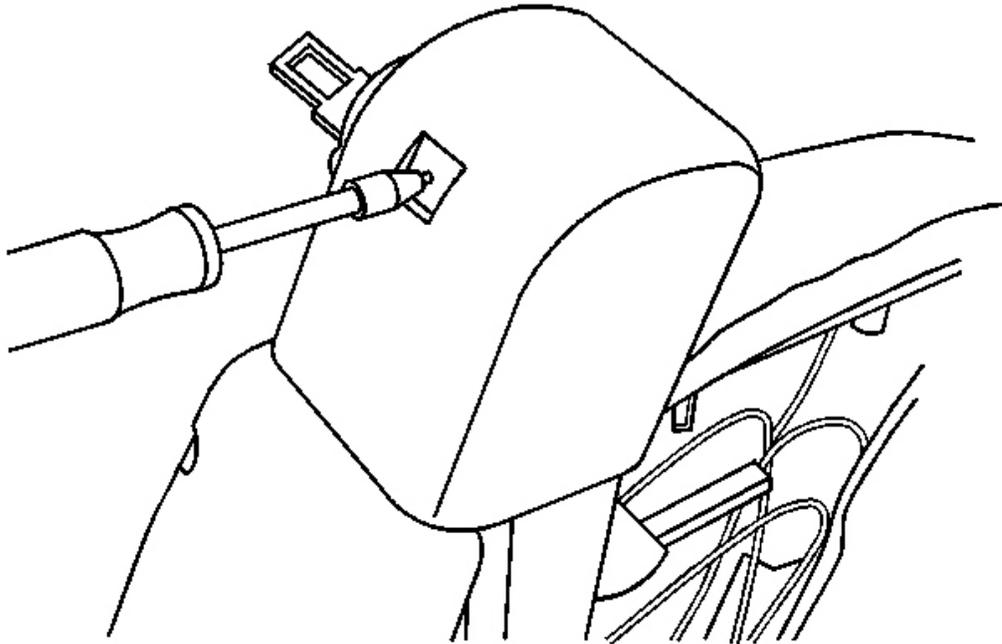


Fig. 14: Retractor Tower Retaining Screw
Courtesy of GENERAL MOTORS CORP.

3. Install the retractor tower cover.
4. Install the retractor tower cover retaining screw.

Tighten: Tighten the screw to 2 N.m (18 lb in).

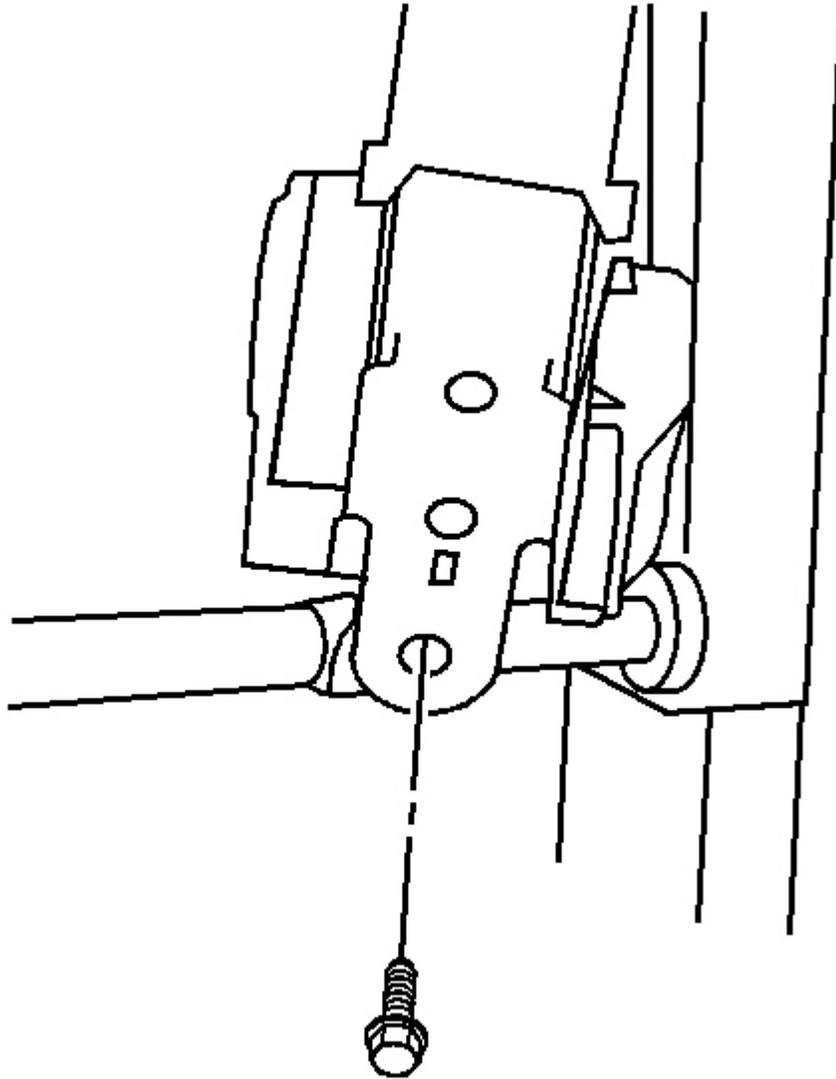


Fig. 15: Lower Seat Belt Retractor Bolt - Left Front
Courtesy of GENERAL MOTORS CORP.

5. Install the retractor.
6. Install the retractor bolt.

Tighten: Tighten the bolt to 53 N.m (39 lb ft).

7. Install the rear cardboard panel retainers.
8. Install the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Front** .
9. Move the seat to its original position.

SEAT BELT RETRACTOR REPLACEMENT - RIGHT FRONT

Removal Procedure

1. Move the front seat to the full forward position.

IMPORTANT: Do not remove the seat back cover from the head restraint retainers.

2. Remove the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Front** .
3. Separate the seat foam from the cardboard to gain access to the retainer on the seat belt side.
4. Remove the seat belt side cardboard retainers.
5. Move the cardboard outwards to gain access to the lower seat belt retractor bolt.

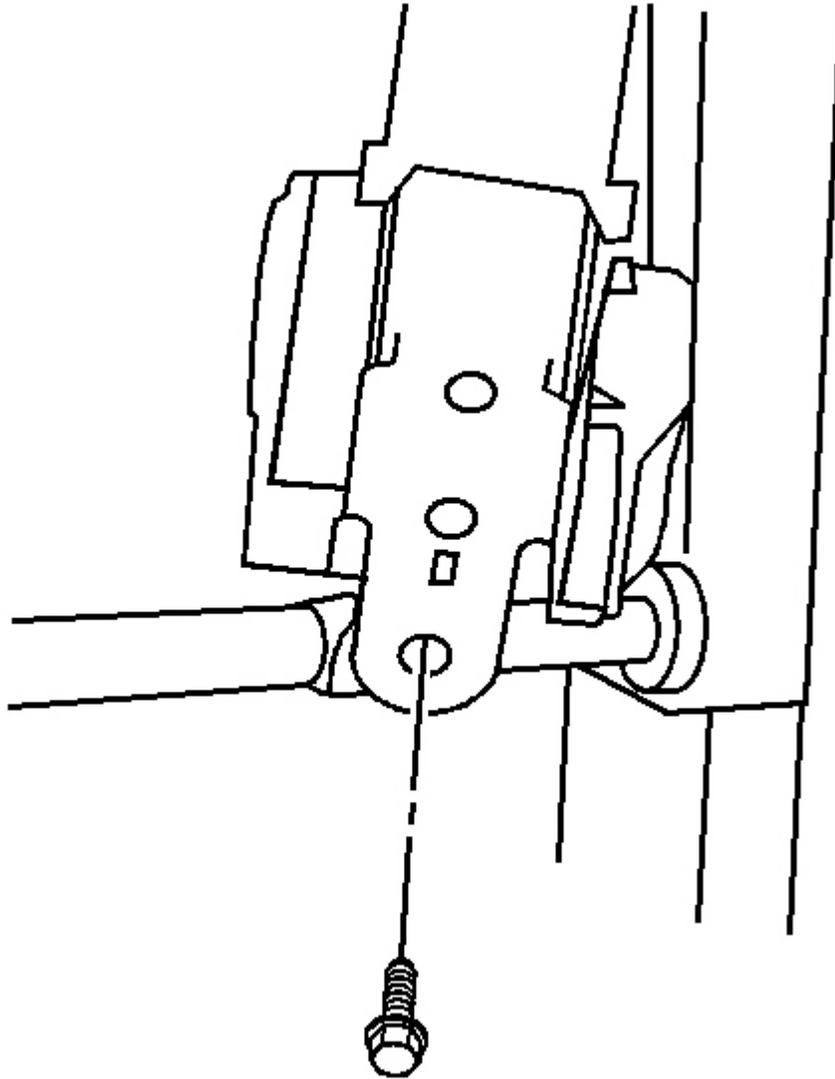


Fig. 16: Lower Seat Belt Retractor Bolt - Left Front
Courtesy of GENERAL MOTORS CORP.

6. Remove the retractor bolt.

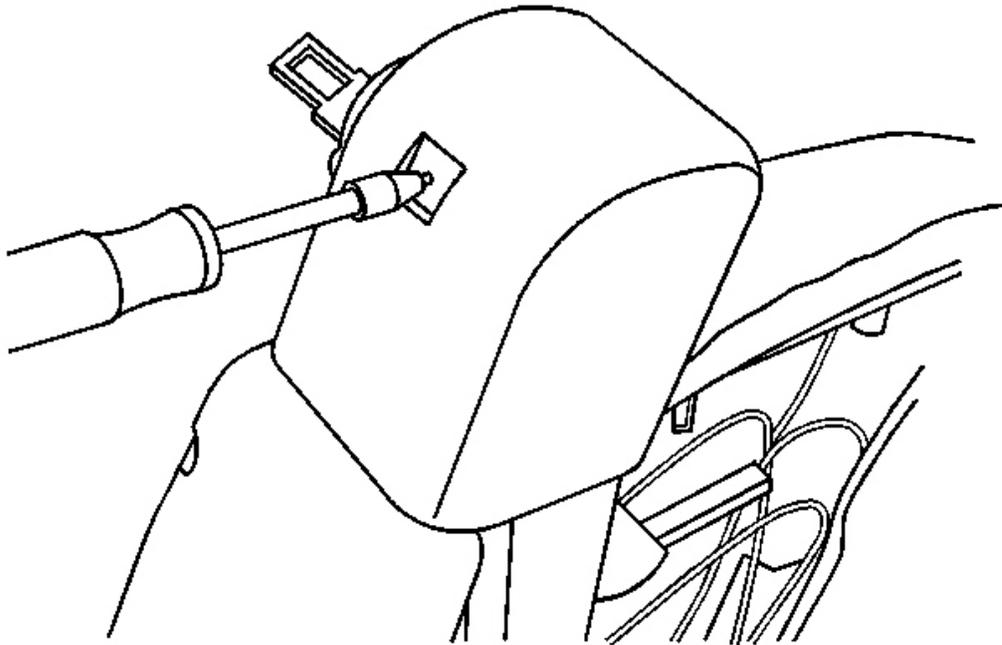


Fig. 17: Retractor Tower Retaining Screw
Courtesy of GENERAL MOTORS CORP.

7. Remove the retractor tower retaining screw.
8. Remove the retractor tower cover.

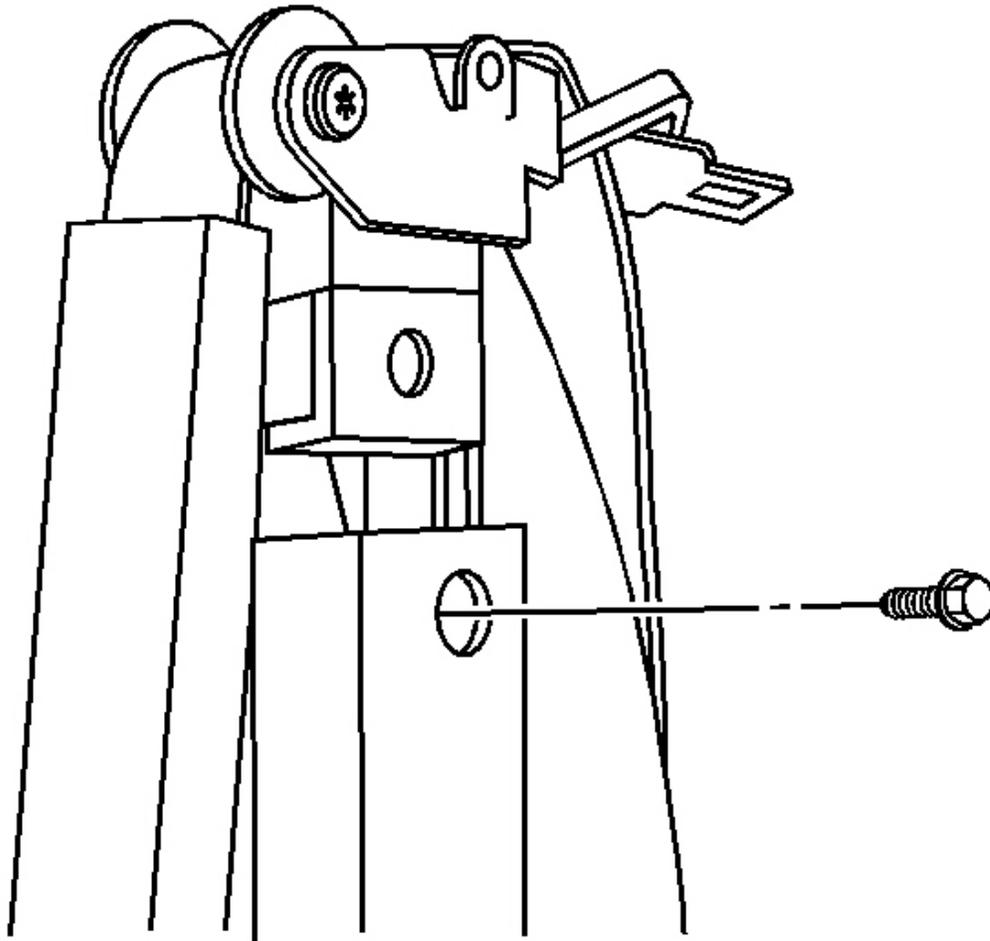


Fig. 18: Upper Anchor Bolt - Right Front
Courtesy of GENERAL MOTORS CORP.

9. Remove the upper anchor bolt.
10. Remove the retractor from the seat.

Installation Procedure

1. Position the seat belt retractor onto the seat.

Line up the tab on the retractor to the tab on the seat frame.

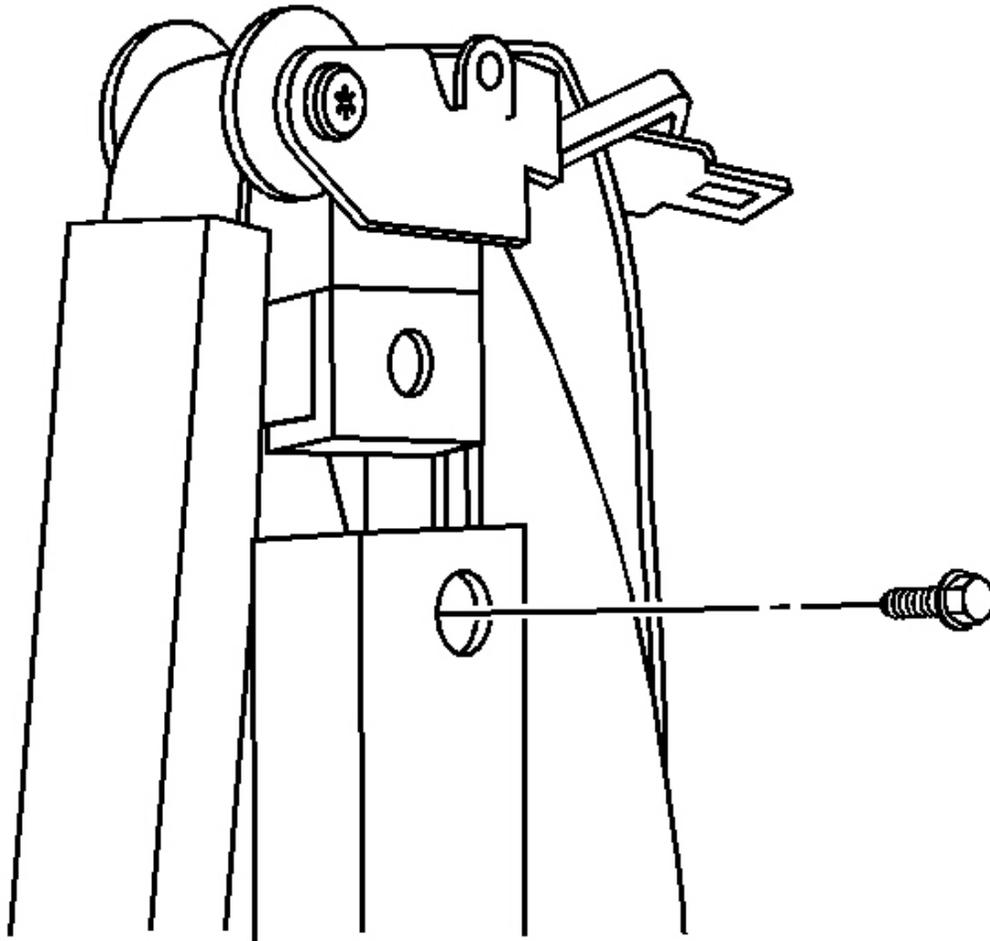


Fig. 19: Upper Anchor Bolt - Right Front
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the upper anchor bolt.

Tighten: Tighten the bolt to 53 N.m (39 lb ft).

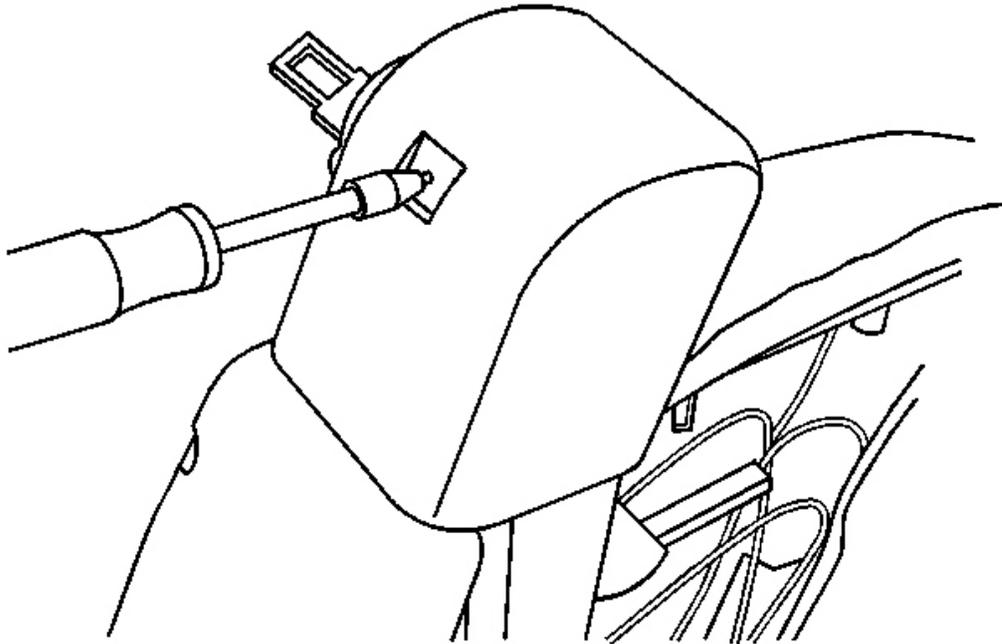


Fig. 20: Retractor Tower Retaining Screw
Courtesy of GENERAL MOTORS CORP.

3. Install the retractor tower cover.
4. Install the retractor tower cover retaining screw.

Tighten: Tighten the screw to 2 N.m (18 lb in).

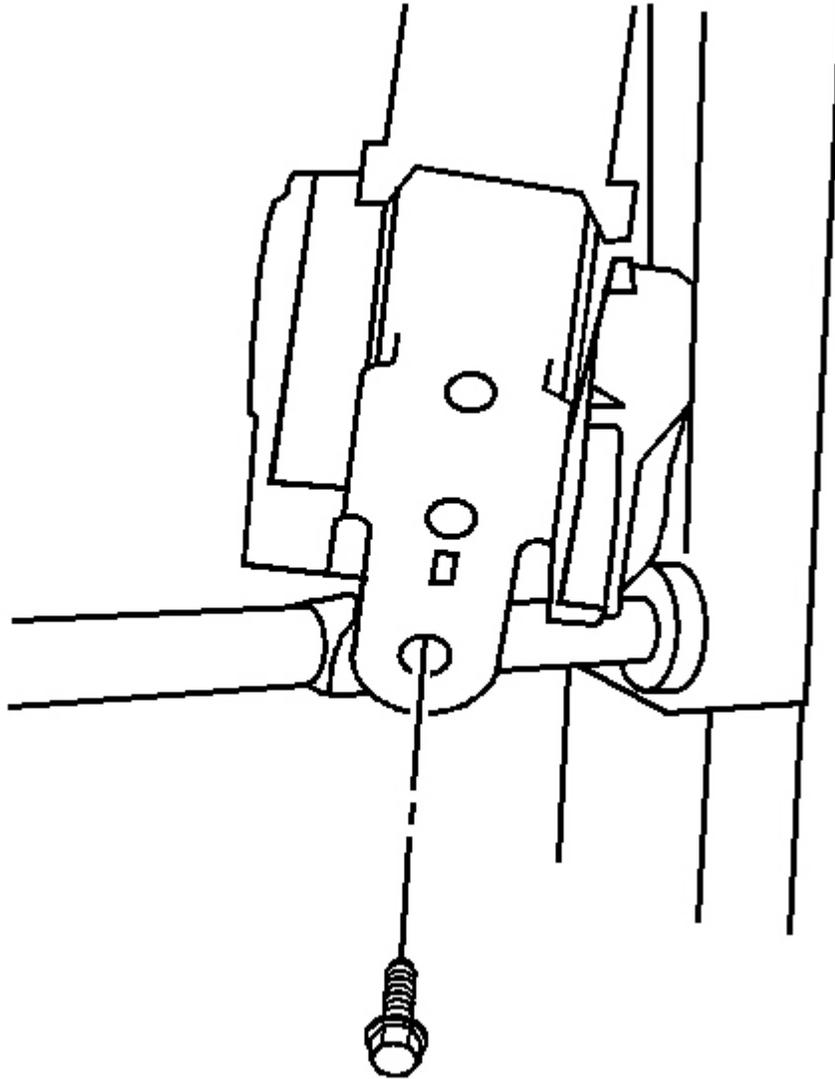


Fig. 21: Lower Seat Belt Retractor Bolt - Left Front
Courtesy of GENERAL MOTORS CORP.

5. Install the retractor.
6. Install the retractor bolt.

Tighten: Tighten the bolt to 53 N.m (39 lb ft).

7. Install the rear cardboard panel retainers.
8. Install the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Front** .
9. Move the seat to its original position.

SEAT BELT RETRACTOR REPLACEMENT - NO. 1 REAR

Removal Procedure

1. Remove the door sill plate. Refer to **Door Sill Plate Replacement - Front** or **Door Sill Plate Replacement - Rear** in Interior Trim.
2. Remove the lower anchor bolt from bodyside panel.
3. Remove the lock pillar trim panel. Refer to **Trim Replacement - Lock Pillar** in Interior Trim.
4. Route the belt through trim panel.

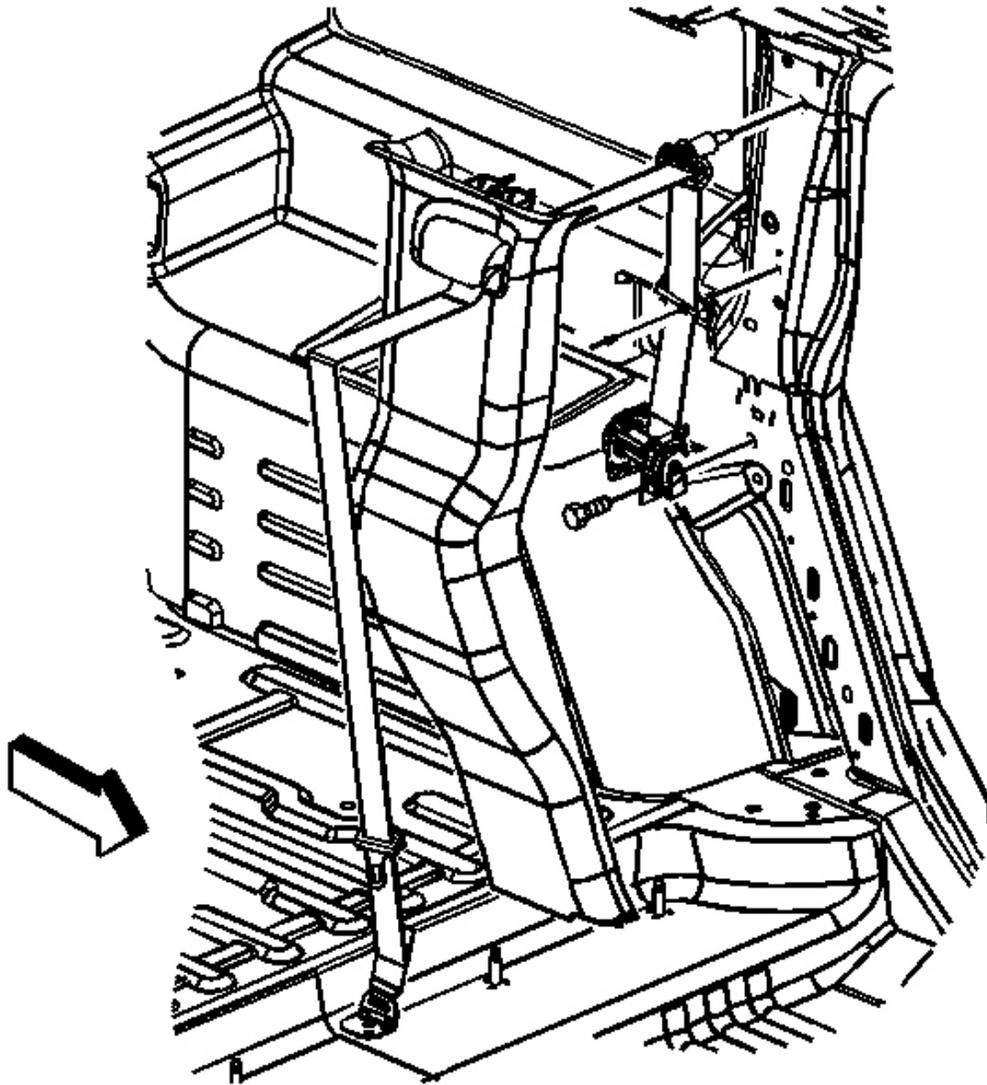


Fig. 22: Upper Guide Bolt
Courtesy of GENERAL MOTORS CORP.

5. Remove the bolt from the upper guide.
6. Remove the bolt from the retractor.
7. Remove the seatbelt anchor bolt cover.
8. Remove the floor anchor bolt.
9. Remove the assembly from the vehicle.

Installation Procedure

1. Install the assembly to vehicle.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the bolt to the retractor.

Tighten: Tighten the bolt to 55 N.m (41 lb ft).

3. Install the bolt to the upper guide.

Tighten: Tighten the bolt to 55 N.m (41 lb ft).

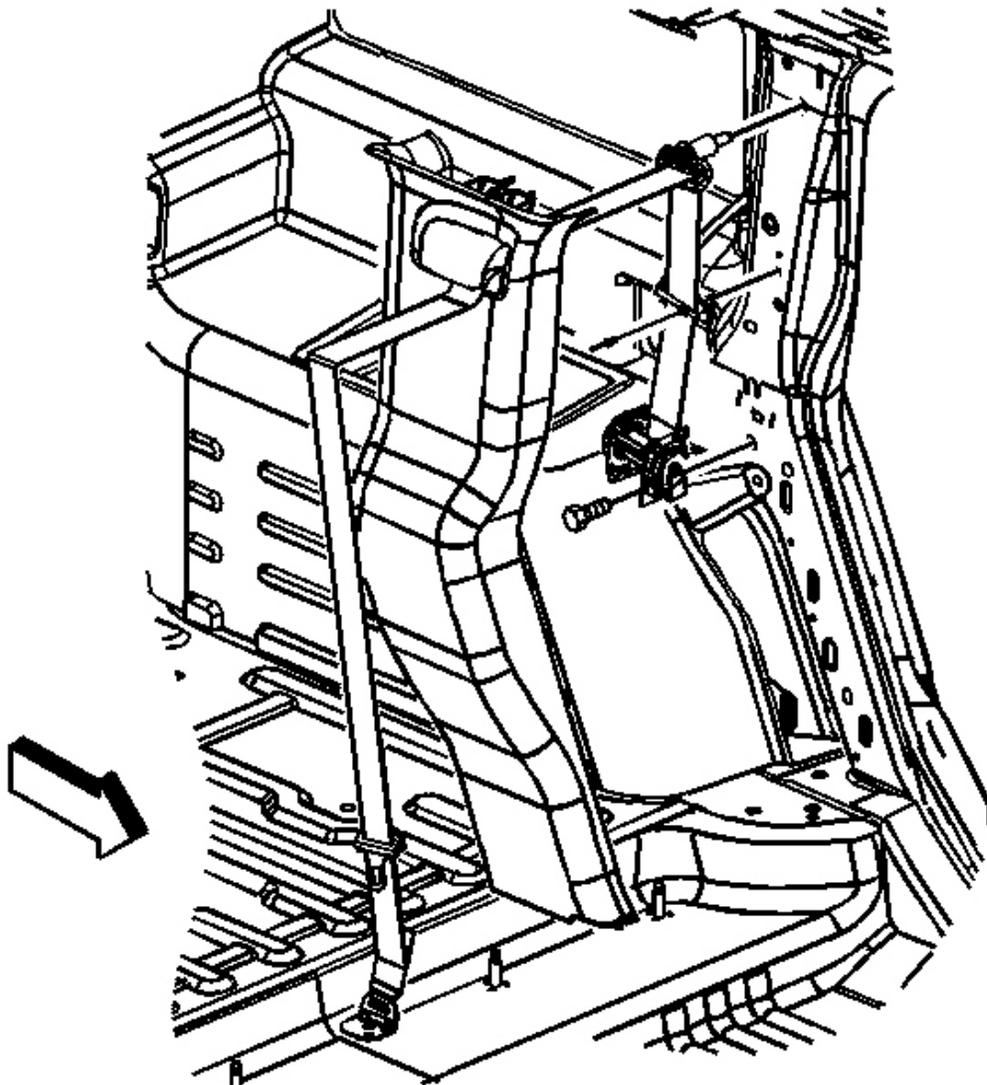


Fig. 23: Upper Guide Bolt
Courtesy of GENERAL MOTORS CORP.

4. Route the belt through trim panel.
5. Install the lock pillar trim panel. Refer to **Trim Replacement - Lock Pillar** in Interior Trim.
6. Install the lower anchor bolt to bodyside panel.

Tighten: Tighten the bolt to 55 N.m (41 lb ft).

7. Install the floor anchor bolt.

Tighten: Tighten the bolt to 55 N.m (41 lb ft).

8. Install the seat belt anchor bolt cover.

9. Install the door sill plate. Refer to **Door Sill Plate Replacement - Front** or **Door Sill Plate Replacement - Rear** in Interior Trim.

SEAT BELT RETRACTOR REPLACEMENT - CENTER REAR

CAUTION: To avoid personal injury to the occupants of the vehicle, observe the following precautions:

- **More than one supplier's seat belts are used, therefore, install ONLY the seat belt components specified in the GM parts catalog.**
- **To verify that the correct seat belt components were installed, insert the seat belt latch in the seat belt buckle. The latch must be fully seated and be retained in the buckle until purposely released.**

Removal Procedure

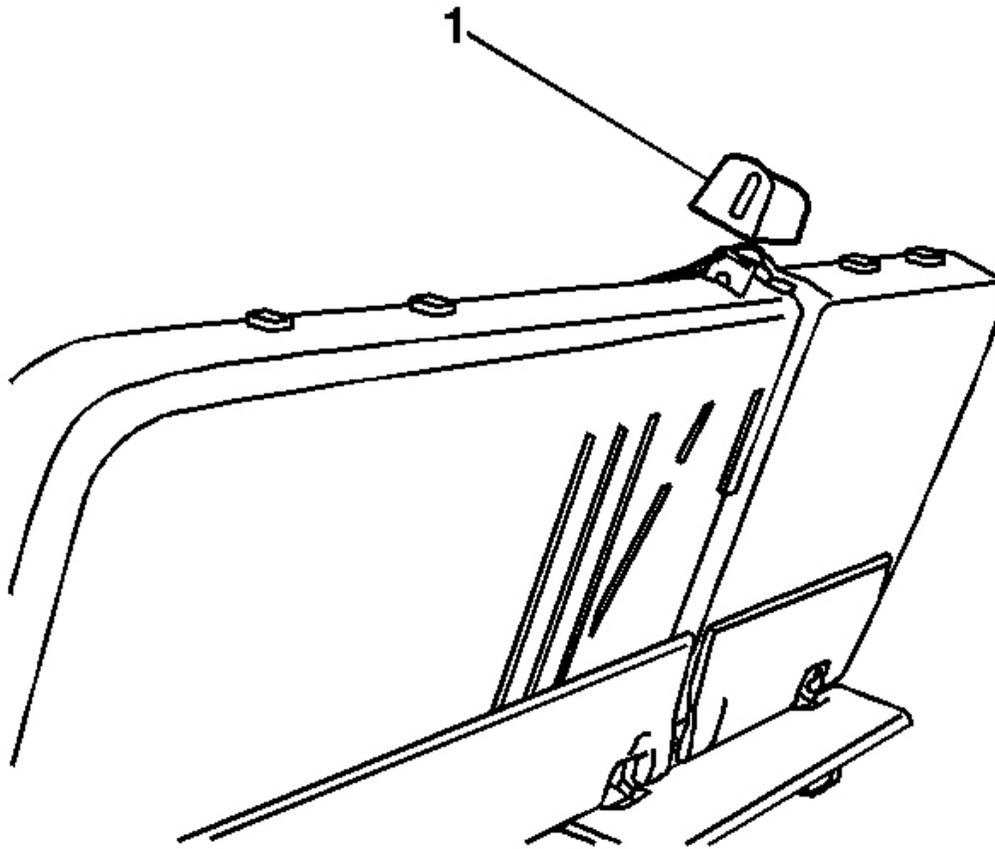


Fig. 24: Seat Belt Guide Cover
Courtesy of GENERAL MOTORS CORP.

1. Remove the seat belt guide cover (1).
2. Remove the rear seat armrest. Refer to **Armrest Replacement - Rear Seat** in Seats.

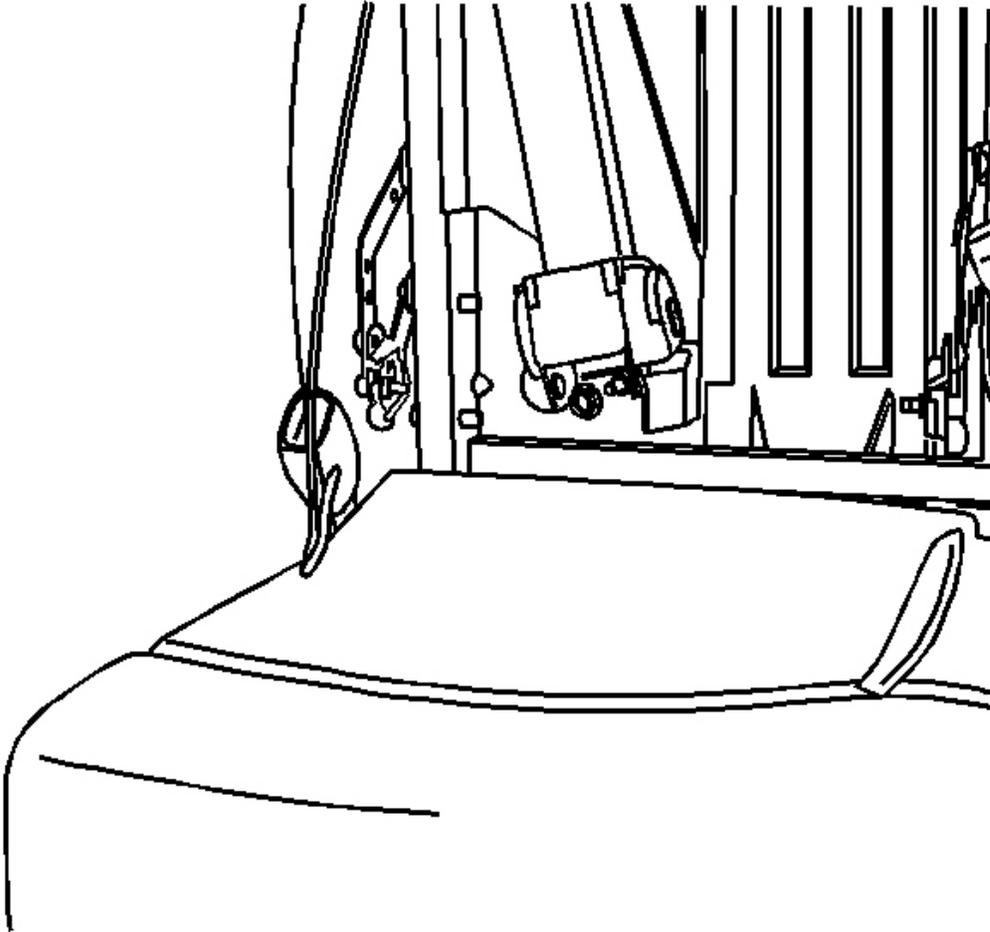


Fig. 25: Seat Belt Retractor Nut
Courtesy of GENERAL MOTORS CORP.

3. Release the J-Clip from under the center armrest.
4. Remove the nut from the seat belt retractor.

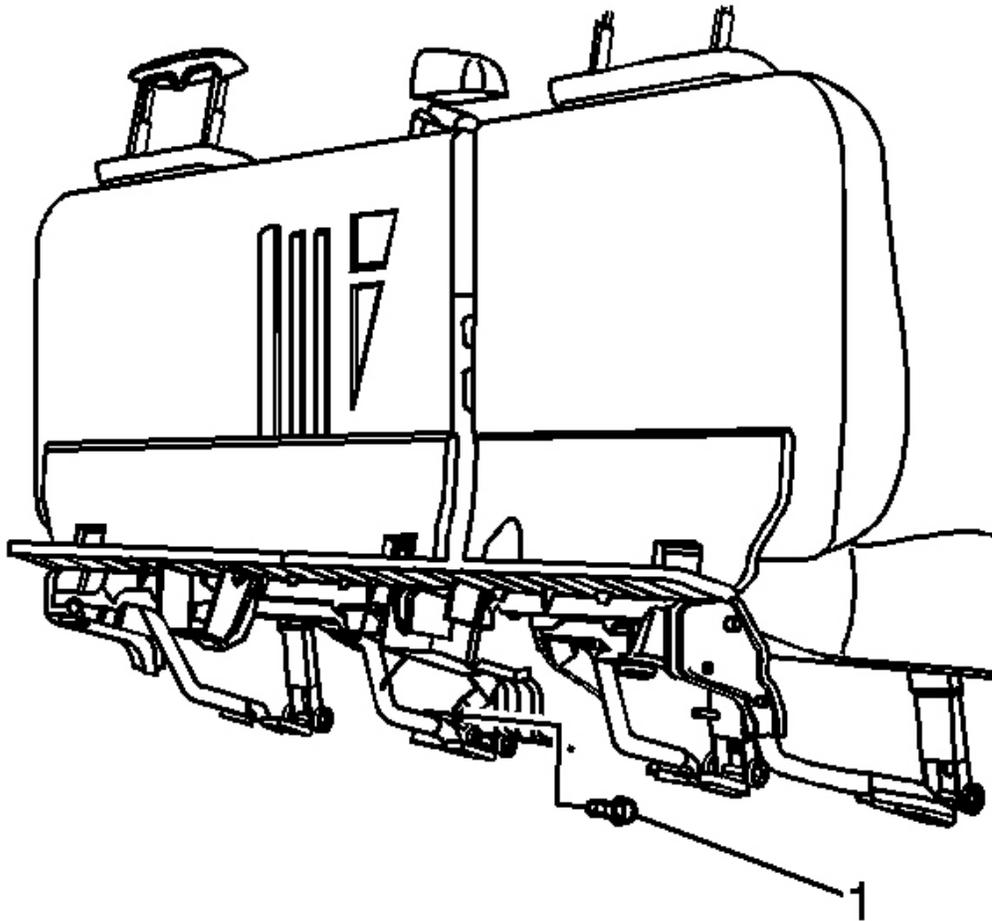


Fig. 26: Seat Belt Anchor Bolt
Courtesy of GENERAL MOTORS CORP.

5. Remove the bolt (1) from the seat belt anchor.

Installation Procedure

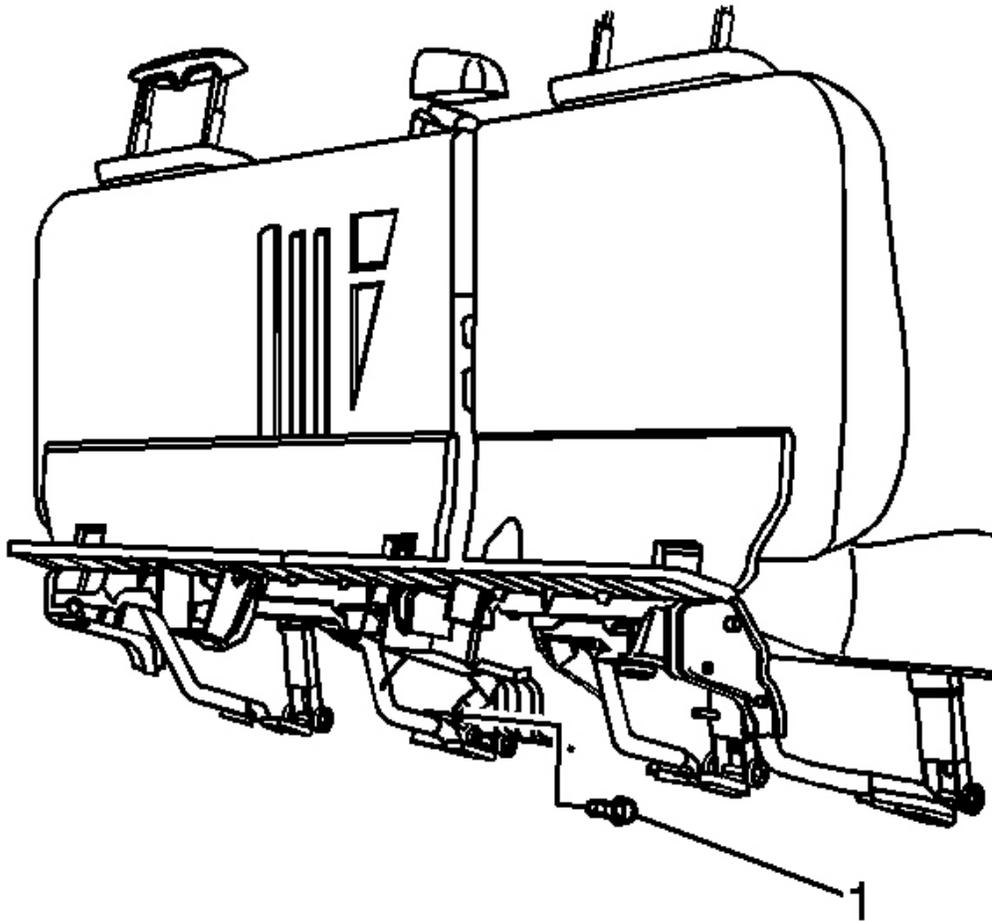


Fig. 27: Seat Belt Anchor Bolt
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

1. Install the bolt (1) to the seat belt anchor.

Tighten: Tighten the bolt to 52 N.m (38 lb ft).

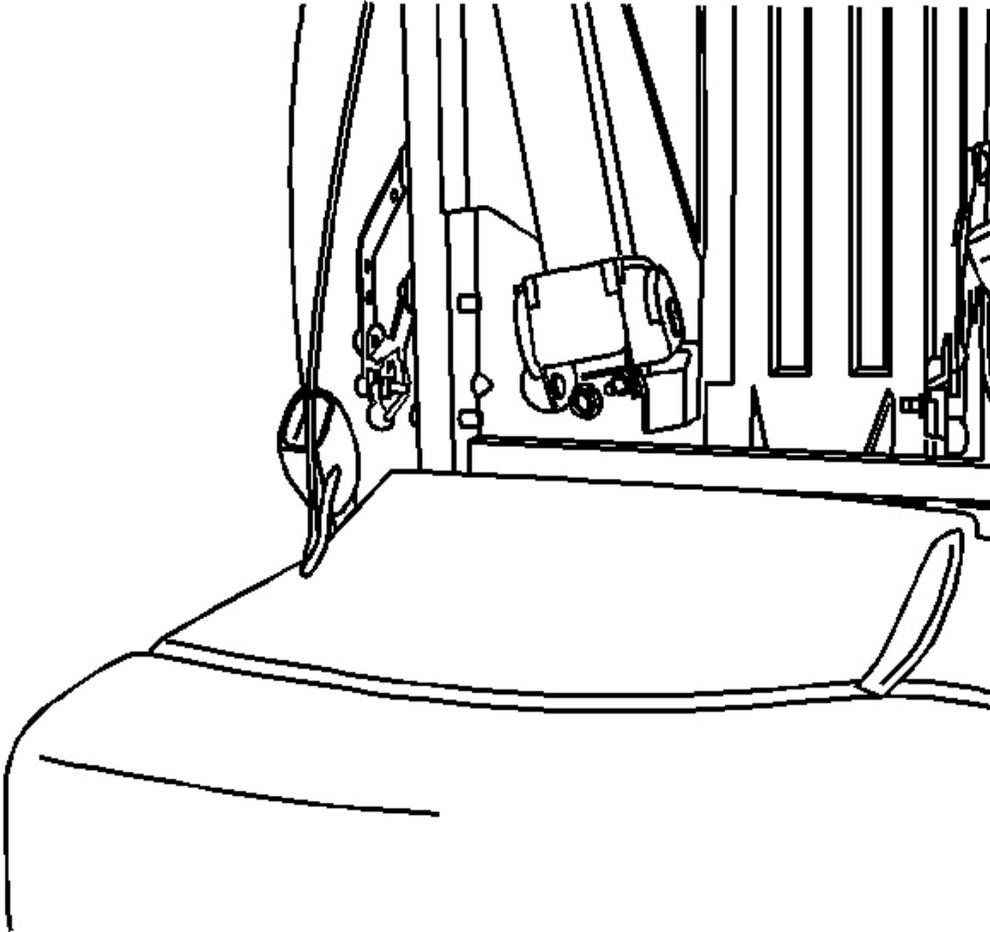


Fig. 28: Seat Belt Retractor Nut
Courtesy of GENERAL MOTORS CORP.

2. Install the nut to the seat belt retractor.

Tighten: Tighten the nut to 52 N.m (38 lb ft).

3. Install the J-Clip under the center armrest.

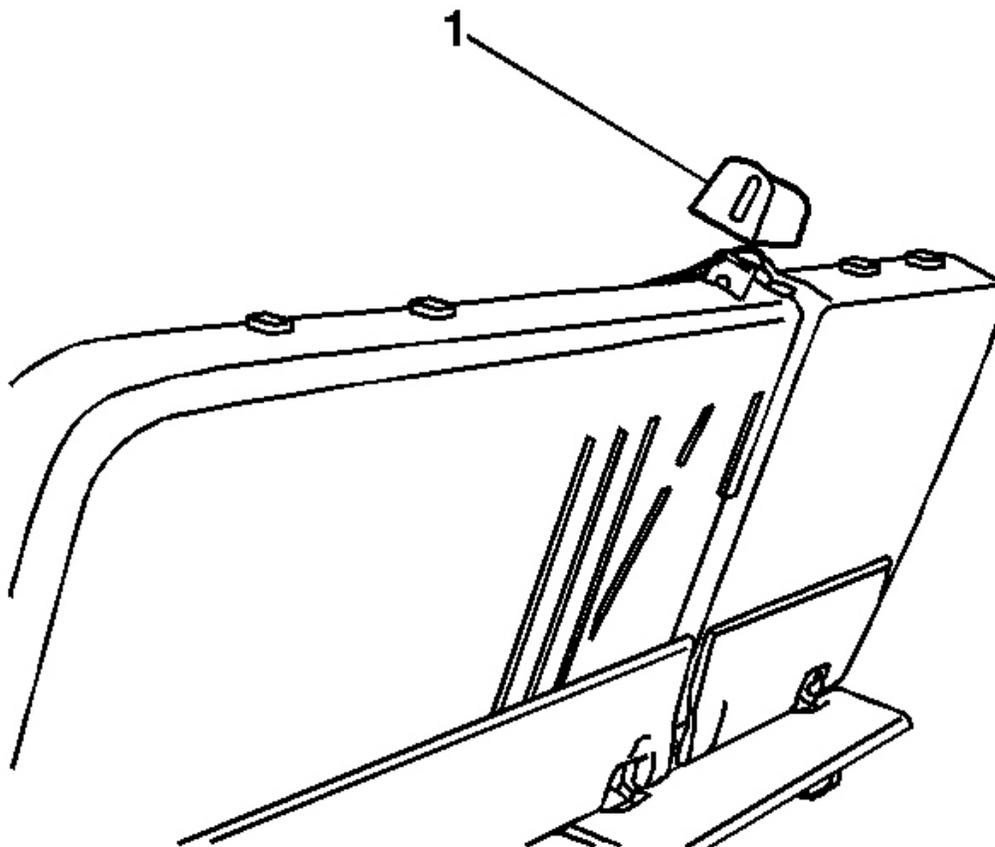


Fig. 29: Seat Belt Guide Cover
Courtesy of GENERAL MOTORS CORP.

4. Install the rear seat armrest. Refer to **Armrest Replacement - Rear Seat** in Seats.
5. Install the seat belt guide cover (1).

SEAT BELT RETRACTOR REPLACEMENT - NO. 2 REAR

Removal Procedure

1. Remove the seat from the vehicle. Refer to **Seat Replacement - Rear No. 2** in Seats.
2. In order to release the seat back, manually rotate the center latch. Rotate the latch until the seat back releases the seat back.

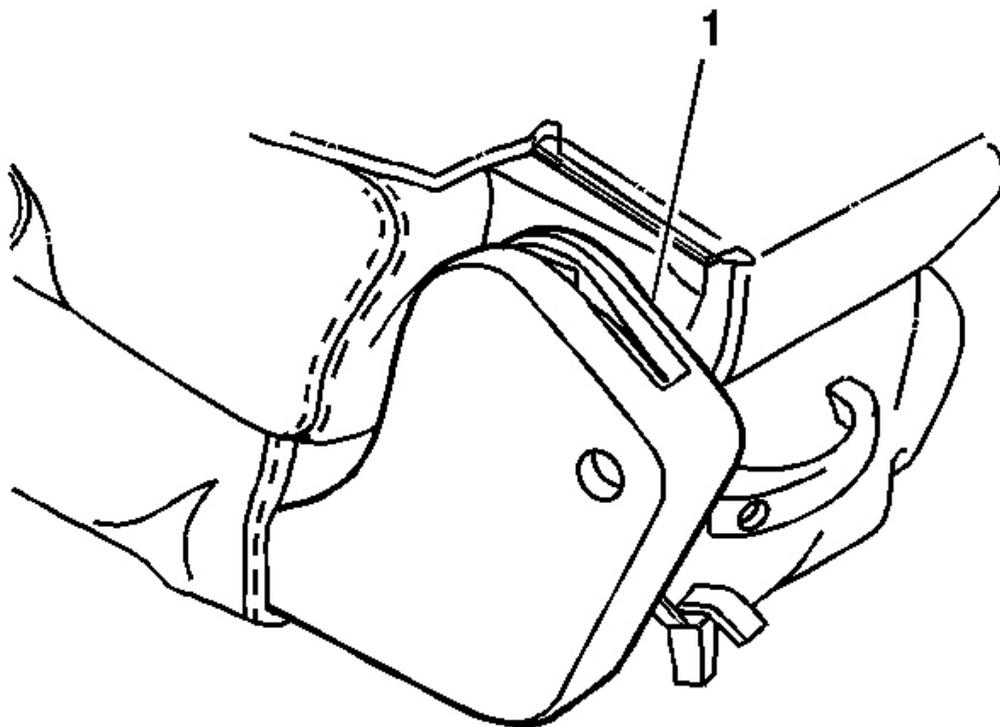


Fig. 30: Seat Latch Cover
Courtesy of GENERAL MOTORS CORP.

3. Remove the latch cover (1) from the seat.

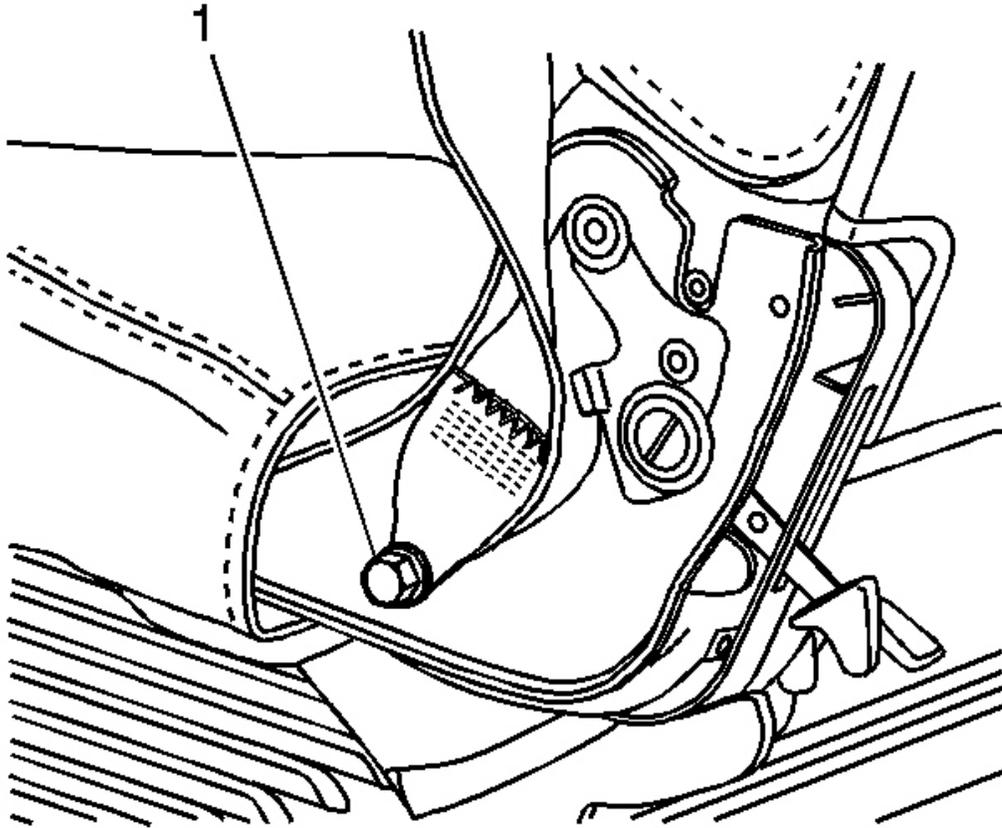


Fig. 31: Seat Belt Anchor Bolt & Cushion Frame
Courtesy of GENERAL MOTORS CORP.

4. Remove the seat belt anchor bolt (1) from the cushion frame.
5. Remove the head rests. Refer to **Head Restraint Replacement** in Seats.
6. Remove the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Rear** .
7. Remove the seat back frame. Refer to **Seat Back Frame Replacement - Rear** in Seats.

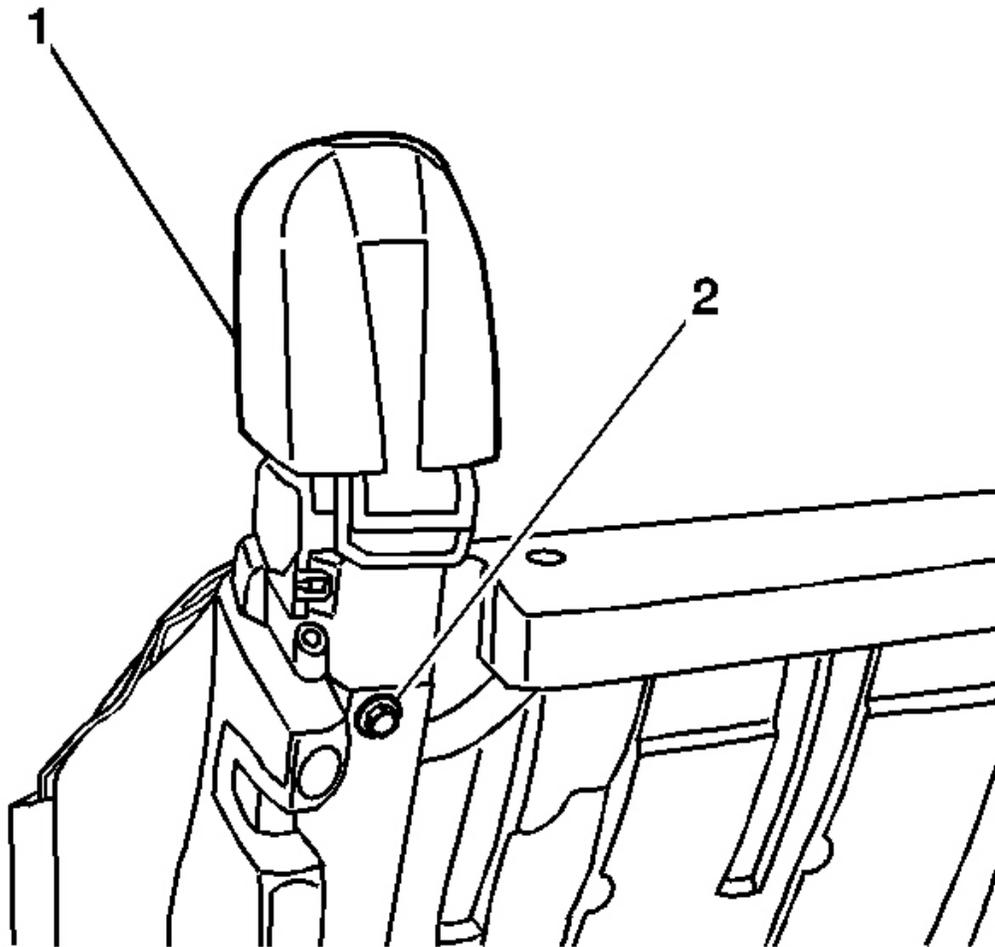


Fig. 32: Seatbelt Retractor Bolt Cover & Retractor Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

8. Remove the seatbelt retractor bolt cover (1).
9. Remove the retractor mounting bolts (2).

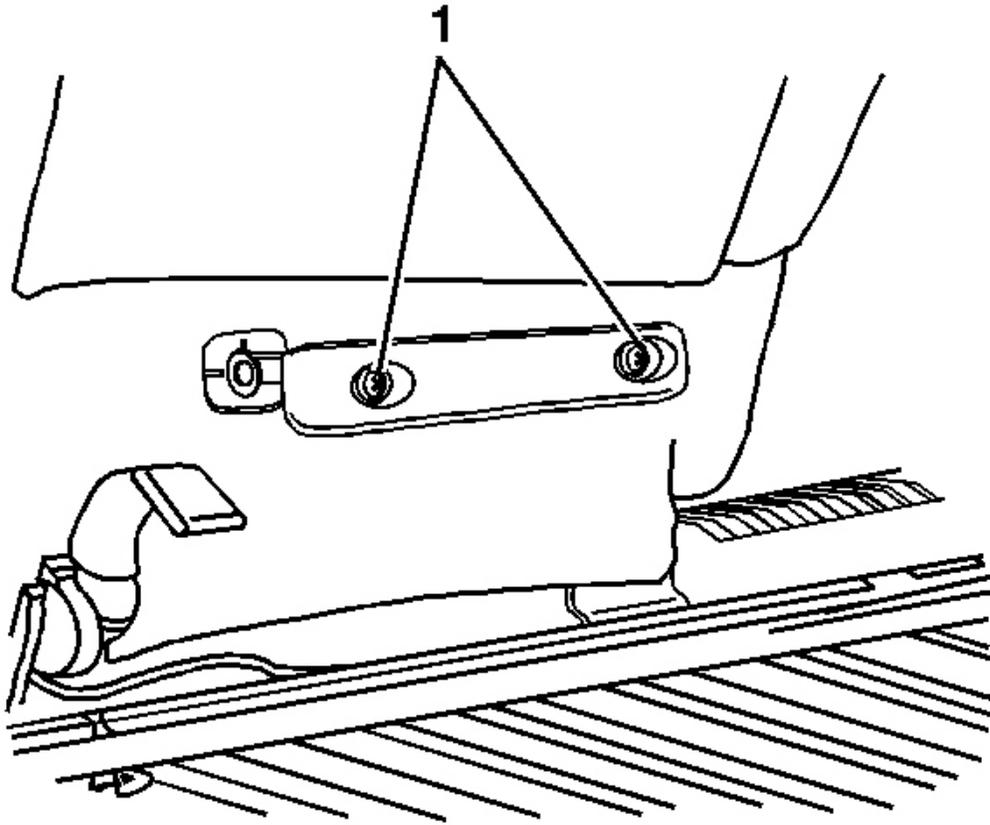


Fig. 33: Handle Mounting Screws
Courtesy of GENERAL MOTORS CORP.

10. Remove the handle mounting screws (1).
11. Partially remove the seat cushion cover by separating the cushion trim J-strips.

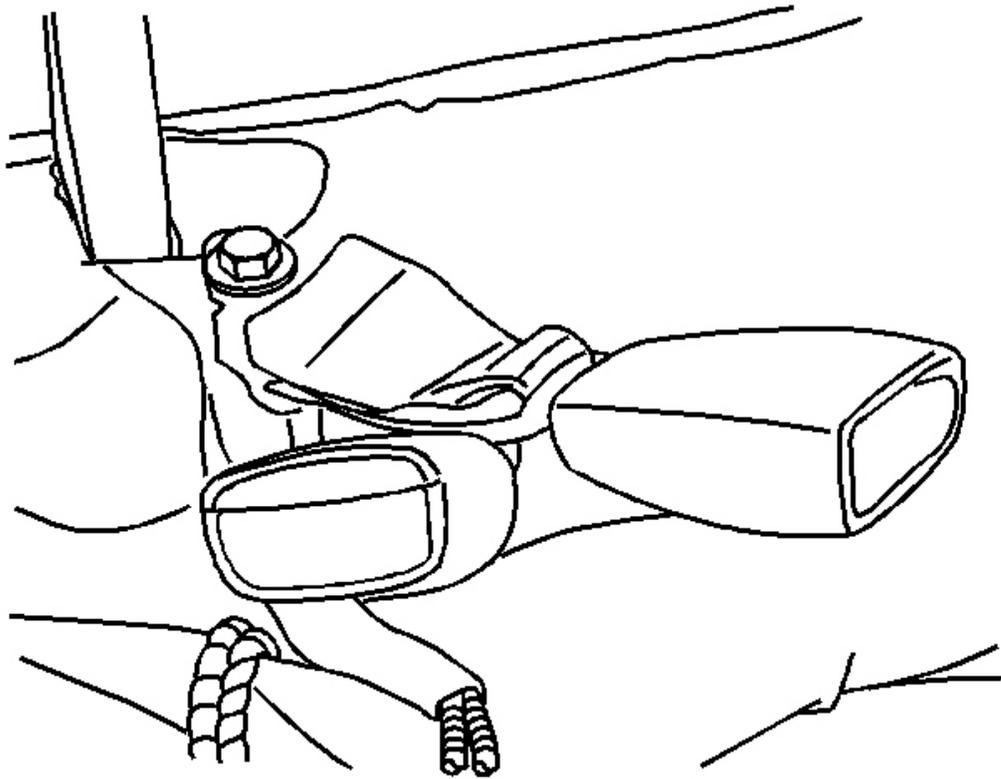


Fig. 34: Seat Belt Buckle & Seat Frame
Courtesy of GENERAL MOTORS CORP.

12. Remove the bolts attaching the buckle to the seat cushion frame.
13. Remove the buckle and the latch from the seat frame.

Installation Procedure

1. Install the buckle and the latch to the seat frame.

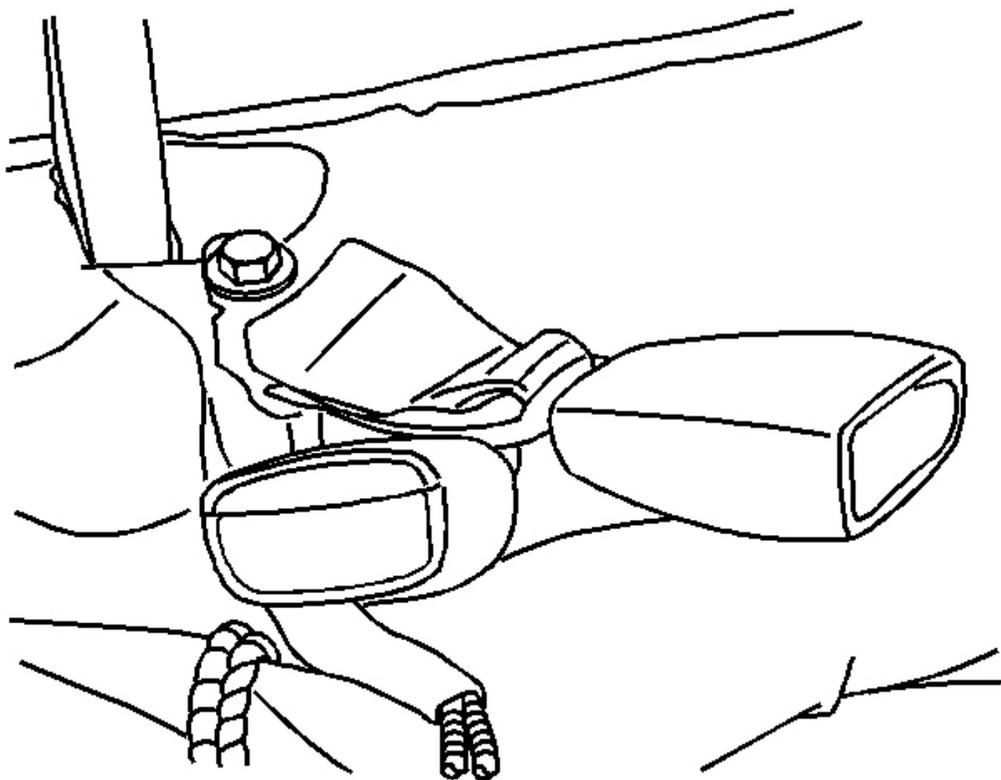


Fig. 35: Seat Belt Buckle & Seat Frame
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the buckle bolts.

Tighten: Tighten the bolts to 55 N.m (41 lb ft).

3. Connect the seat cushion cover by joining the cushion trim J-strips.

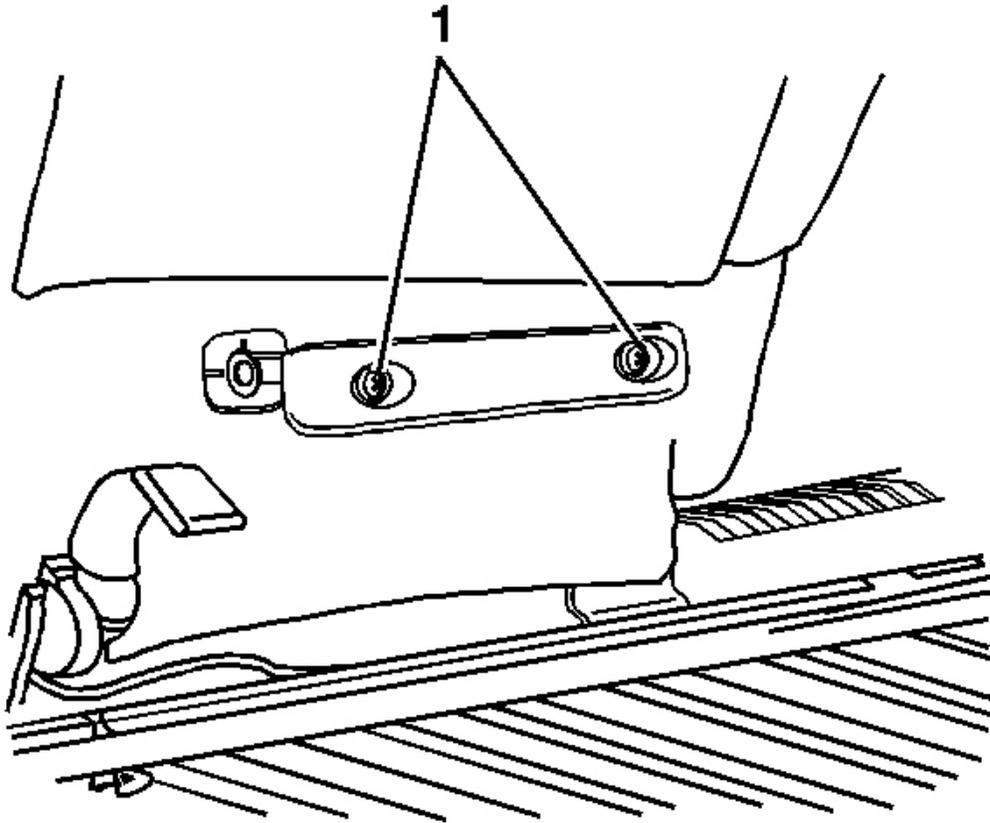


Fig. 36: Handle Mounting Screws
Courtesy of GENERAL MOTORS CORP.

4. Install the handle mounting screws (1).

Tighten: Tighten the screws to 7 N.m (61 lb in).

5. Install the seat back frame. Refer to **Seat Back Frame Replacement - Rear** in Seats.

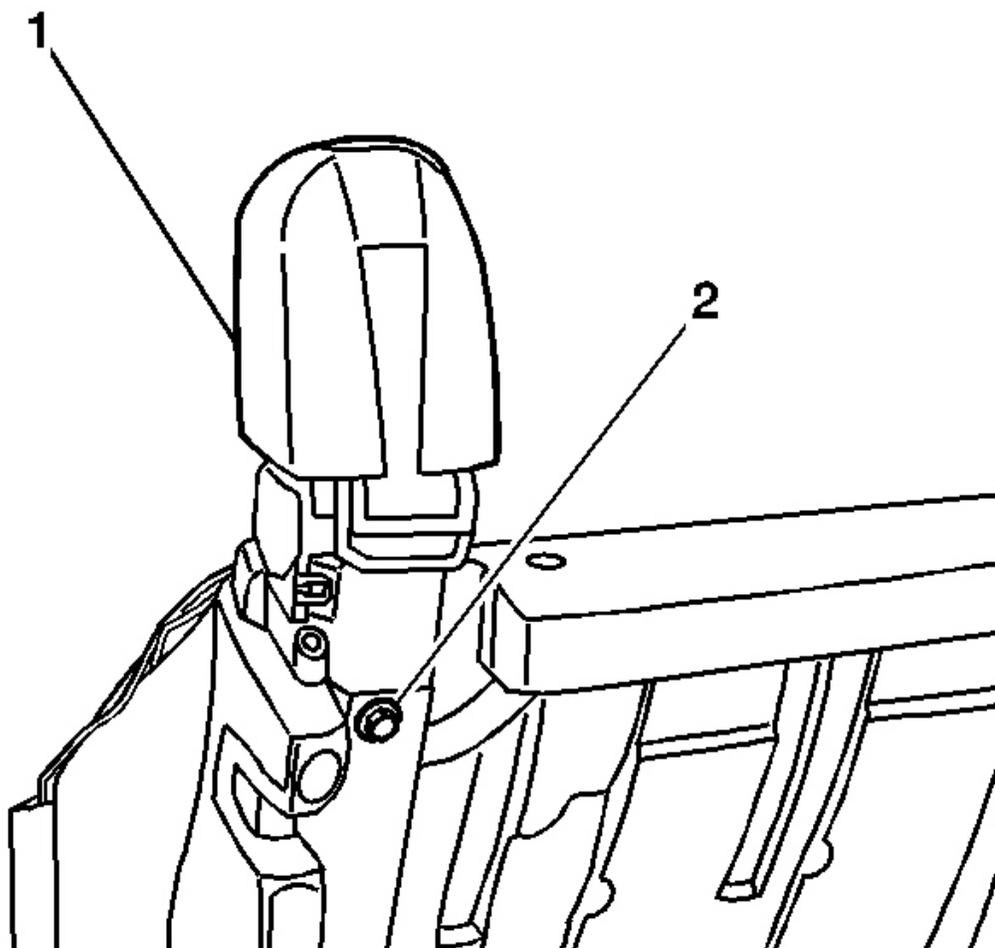


Fig. 37: Seatbelt Retractor Bolt Cover & Retractor Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

6. Install the retractor mounting bolt (2).

Tighten: Tighten the bolt to 55 N.m (410 lb ft).

7. Install the seatbelt retractor bolt cover (1).
8. Install the seat back cover and pad. Refer to **Seat Back Cover and Pad Replacement - Rear** .
9. Install the headrests. Refer to **Head Restraint Replacement** in Seats.

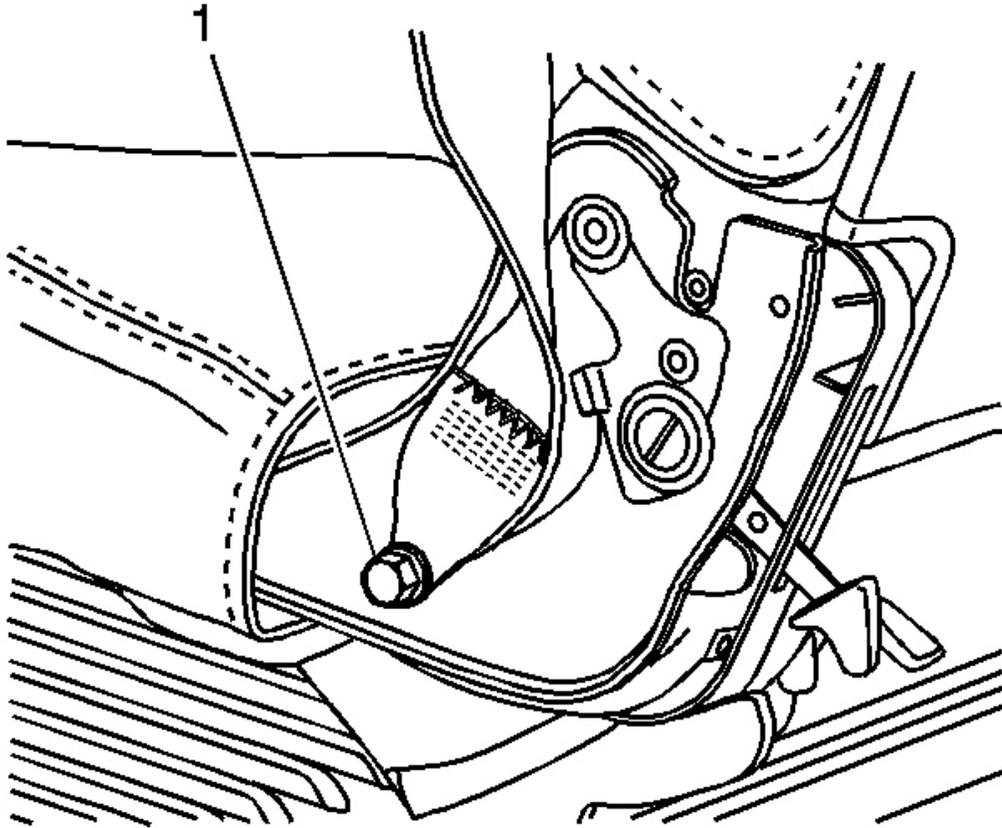


Fig. 38: Seat Belt Anchor Bolt & Cushion Frame
Courtesy of GENERAL MOTORS CORP.

10. Install the seat belt anchor bolt (1) to the cushion frame.

Tighten: Tighten the bolt to 55 N.m (41 lb ft)

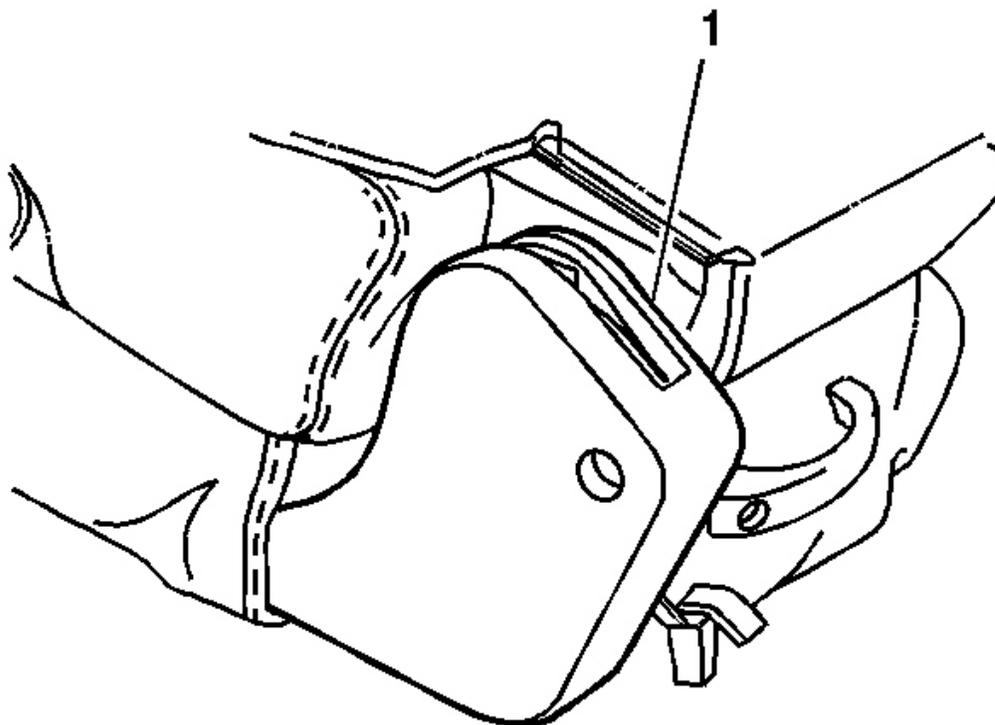


Fig. 39: Seat Latch Cover
Courtesy of GENERAL MOTORS CORP.

11. Install the latch cover (1) to the seat.

Tighten: Tighten the screw to 2 N.m (18 lb in).

12. In order to secure the seat back, manually rotate the center latch. Rotate the latch until the seat back clicks into position.
13. Install the seat to the vehicle. Refer to **Seat Replacement - Rear No. 2** in Seats.

DESCRIPTION AND OPERATION

SEAT BELT SYSTEM DESCRIPTION AND OPERATION

CAUTION: To help avoid personal injury from unrepaired crash damage to a restraint system, perform the seat belt check for each seat belt system. Replace the seat belt system if there is any doubt about the condition of system components.

Front Seat Belt System Operation

1. The front seat belt system includes a driver and/or passenger seat belt retractor and buckle.
2. The LF seat belt system, includes a seat belt switch in the LF seat buckle which controls a seat belt indicator and an audio alarm. When the LF seat belt is buckled, the LF door closed, and the ignition switch is in the ON position, the following events occur:
 - The audio alarm will not operate.
 - The seat belt indicator will not operate.
3. When the LF seat belt is not buckled, the LF door closed, and the ignition switch is in the RUN position, the following events will occur:
 - The audio alarm will operate for 4 to 8 seconds and then turn OFF.
 - The seat belt indicator will operate for 20 seconds, until the LF seat belt is buckled.
 - The seat belt indicator will flash for an additional 55 seconds before turning OFF.

To diagnose further failure of the seat belt indicator refer to **Symptoms - Seat Belts** or the audio alarm, refer to Audible Warnings in Instrument Panel, Gauges and Console.

Child Seat Restraint System

CAUTION: A child in a rear-facing child restraint can be seriously injured if the right-front passengers air bag inflates. This is because the back of a rear-facing child restraint would be very close to the inflating air bag. NEVER use a rear-facing child restraint in this vehicle. If a forward-facing child restraint is suitable for your child, ALWAYS move the front passenger seat as far back as it will go and then install the child restraint. Be sure the child restraint position does not conflict with any additional requirements provided by the manufacturer. For more information, refer to the vehicle owners manual and the instruction that came with the child restraint.

The child seat may only be used in a forward facing seating location. The child seat should be installed and secured according to the manufacturer's directions. If the child seat has a top strap it will need to be anchored.

All vehicles are equipped with a dual-mode type retractor with emergency and automatic locking features. The automatic locking feature is for restraint of a child seat. The child seat can be secured by pulling the seat belt all the way out to lock it. Then, tighten the seat belt around the child seat.

If a child seat is to be used in the second seat position, a special dealer-installed anchor must be used to anchor the child seat top strap. (This only applies to the seats designed with the top strap provision and for the vehicles sold in Canada). In order to assure the correct top strap angle, the child seat is only to be used at the seating position for which the top strap anchor is installed.

Seat Belt System Circuit Description

The seat belt indicator will illuminate when the following conditions occur simultaneously:

- The ignition switch is in one of the following positions:
 - RUN
 - BULB TEST
 - START
- The LF seat belt is not fastened.

The audio alarm, located within the radio/amplifier, also incorporates an indicator within the instrument panel cluster (IPC). The seat belt indicator works in conjunction with the audio alarm. When the SDM receives a signal that the LF seat belt is unfastened, the SDM sends a signal to the IPC to command ON the seat belt indicator and to the radio/amplifier to command ON the audible alarm.