## **RESTRAINTS**

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**SECTION 8A SEAT BELTS** 

SECTION 8B SUPPLEMENTAL INFLATABLE RESTRAINTS

(SIR)

## **SECTION 8A**

## **SEAT BELTS**

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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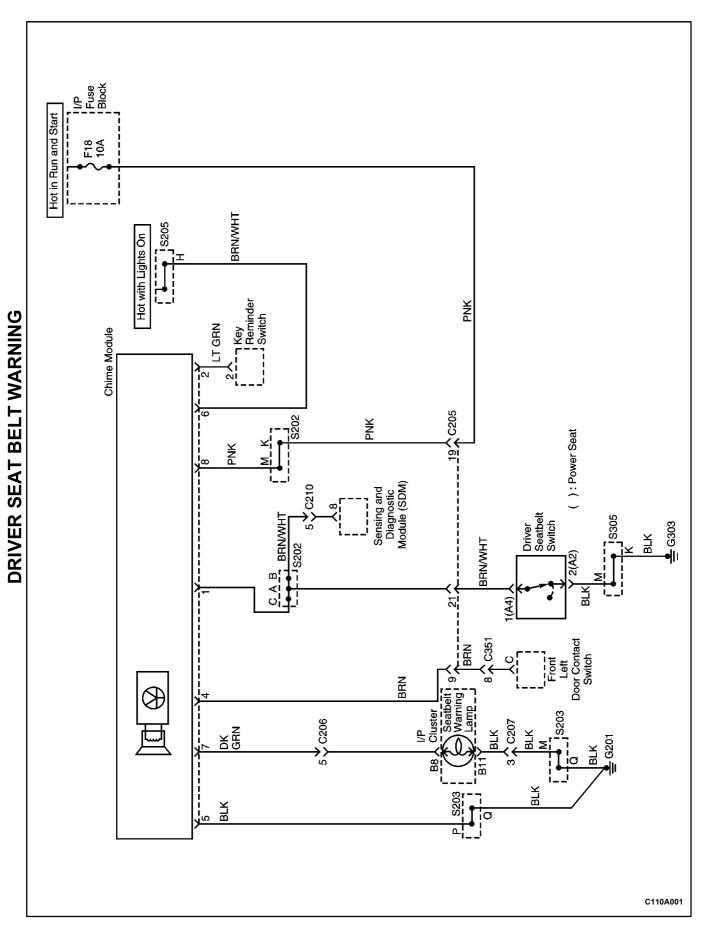
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## **SPECIFICATIONS**

## **FASTENER TIGHTENING SPECIFICATIONS**

Application	N•m	Lb•Ft	Lb•ln
Front Seat Belt Height Adjuster Bolts	19	14	-
Seat Belt Anchor Bolt	35	26	-
Seat Belt Bracket Screws	3	-	27
Seat Belt Retractor Screw	10	-	89

## **SCHEMATIC AND ROUTING DIAGRAMS**



## **DIAGNOSIS**

### **DRIVER SEAT BELT WARNING**

## Seat Belt Warning Lamp Does Not Turn On at Any Time

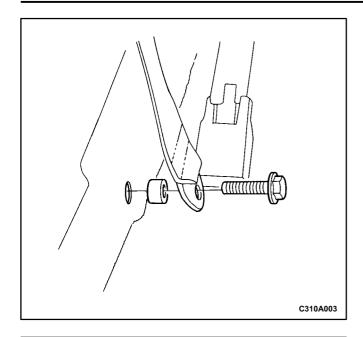
Step	Action	Value(s)	Yes	No
1	<ol> <li>Unbuckle the seat belt.</li> <li>Close the doors of the vehicle.</li> <li>Turn the ignition ON.</li> <li>Is the seat belt warning chime OK?</li> </ol>	-	Go to Step 13	Go to Step 2
2	Check the seat belt warning fuse F18. Is fuse F18 blown?	-	Go to Step 3	Go to Step 4
3	<ol> <li>Check for a short circuit and repair if necessary.</li> <li>Replace the fuse.</li> <li>Is the repair complete?</li> </ol>	•	System OK	•
4	<ol> <li>Turn the ignition ON.</li> <li>Check the voltage at fuse F18.</li> <li>Is the voltage equal to the specified value?</li> </ol>	11-14 V	Go to Step 6	Go to Step 5
5	Repair the open power supply circuit for fuse F18. Is the repair complete?	-	System OK	-
6	<ol> <li>Disconnect the seat belt switch connector (located under the driver's seat).</li> <li>Connect a jumper between the terminals on the harness side of the seat belt switch connector.</li> <li>Turn the ignition ON.</li> </ol>	-	Go to Step 7	Go to Step 8
7	Does the seat belt warning lamp turn on?  Replace the seat belt switch.  Is the repair complete?	-	System OK	- -
8	<ol> <li>Disconnect the chime module electrical connector.</li> <li>Turn the ignition ON.</li> <li>Check the voltage at the chime module connector, terminal 8.</li> <li>Is the voltage equal to the specified value?</li> </ol>	11-14 V	Go to Step 10	Go to <i>Step</i> 9
9	Repair the open circuit between fuse F18 and the chime module. Is the repair complete?	-	System OK	-
10	<ol> <li>The chime module connector is disconnected.</li> <li>Turn the ignition OFF.</li> <li>Use an ohmmeter to measure resistance between ground and terminal 5 of the chime module.</li> <li>Is the resistance equal to the specified value?</li> </ol>	≈ O Ω	Go to Step 12	Go to Step 11
11	Repair the ground circuit for the chime module. Is the repair complete?	-	System OK	-
12	<ol> <li>The chime module connector is disconnected.</li> <li>Turn the ignition OFF.</li> <li>Make sure the driver's seat belt is unbuckled.</li> <li>Use an ohmmeter to measure resistance between ground and terminal 1 of the chime module.</li> <li>Is the resistance equal to the specified value?</li> </ol>	≈ O Ω	Go to Step 14	Go to Step 13

## Seat Belt Warning Lamp Does Not Turn On at Any Time (Cont'd)

Step	Action	Value(s)	Yes	No
13	Repair the open circuit between ground and terminal 1 of the chime module connector. Is the repair complete?	•	System OK	-
14	<ol> <li>Remove the instrument cluster.</li> <li>Check the seat belt warning lamp bulb.</li> <li>Is the bulb OK?</li> </ol>	-	Go to Step 16	Go to Step 15
15	Replace the warning lamp bulb. Is the repair complete?	-	System OK	-
16	<ol> <li>If the seat belt switch and the chime module were disconnected in a previous step, make sure that they have been reconnected.</li> <li>Leave the seat belt unbuckled.</li> <li>Turn the ignition ON.</li> <li>Check the voltage at terminal B6 of the instrument cluster.</li> <li>Is the voltage equal to the specified value?</li> </ol>	11-14 V	Go to Step 20	Go to Step 17
17	Disconnect the chime module connector.     Use an ohmmeter to check for continuity between the chime module connector terminal 7 and the instrument cluster connector B6.  Did the ohmmeter indicate the specified value?	≈ O Ω	Go to Step 19	Go to Step 18
18	Repair the open circuit between the chime module terminal 7 and the instrument cluster terminal B6.	•	System OK	-
19	Replace the chime module. Is the repair complete?	-	System OK	-
20	Repair the open circuit between instrument cluster terminal B11 and ground. Is the repair complete?	-	System OK	-

## **Seat Belt Warning Chime Does Not Work**

Step	Action	Value(s)	Yes	No
1	<ol> <li>Leave the seat belt unbuckled.</li> <li>Close the doors of the vehicle.</li> <li>Turn the ignition ON.</li> <li>Is the seat belt warning lamp ON?</li> </ol>	-	Go to Step 2	Go to Seat Belt Warning Lamp Does Not Turn On at Any Time"
2	<ol> <li>Buckle the seat belt.</li> <li>Open the driver's door and turn the headlamps on.</li> <li>Turn the ignition ON.</li> <li>Does the chime work as a door-open or headlamps-on warning?</li> </ol>	,	Go to Step 3	Go to Step 4
3	Replace the warning chime bell module. Is the repair complete?	-	System OK	-
4	<ol> <li>Disconnect the chime module electrical connector.</li> <li>Use an ohmmeter to measure the resistance between ground and terminal 5 of the chime module connector.</li> <li>Is the resistance equal to the specified value?</li> </ol>	≈ O Ω	Go to Step 3	Go to <i>Step 5</i>
5	Repair the open circuit between ground and terminal 5 of the chime module connector. Is the repair complete?	-	System OK	-



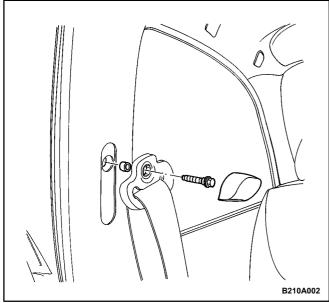


## **ON-VEHICLE SERVICE**

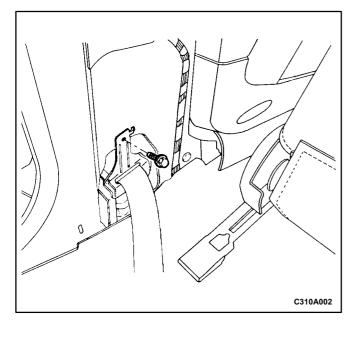
# THREE-POINT ELR FRONT SEAT BELT

#### **Removal Procedure**

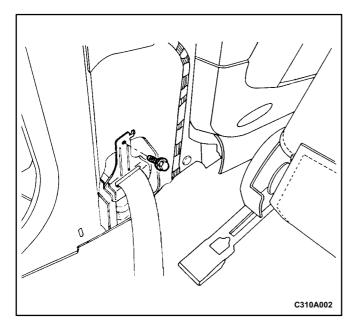
- 1. Reposition the plastic cap to reveal the lower B-pillar seat belt anchor.
- 2. Remove the bolt and the lower B-pillar seat belt anchor.



- 3. Remove the lower B-pillar trim panel. Refer to *Section* 9*G*, *Interior Trim*.
- 4. Reposition the plastic cap to reveal the upper B-pillar seat belt anchor.
- 5. Remove the bolt and the upper B-pillar seat belt anchor.



- 6. Remove the screws and the seat belt bracket.
- 7. Disconnect the electrical connector.
- 8. Remove the screw and the seat belt retractor.



#### **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 seat belt retractor with the screw.

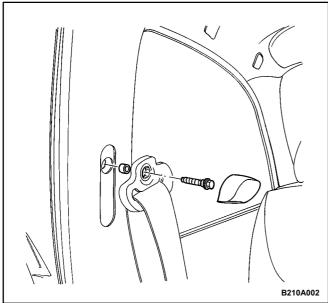
#### **Tighten**

Tighten the seat belt retractor screw to 10 N•m (89 lb•in).

- 2. Connect the electrical connector.
- 3. Install the seat belt bracket with the screws.

#### Tighten

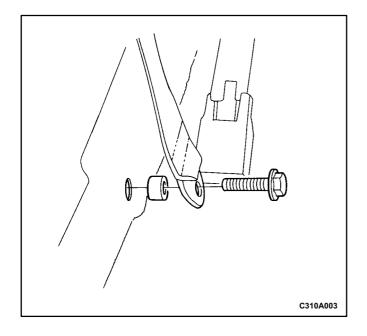
Tighten the seat belt bracket screws to 3 N•m (27 lb•in).



4. Install the upper B-pillar seat belt anchor with the bolt.

#### Tighter

Tighten the seat belt anchor bolt to 35 N•m (26 lb•ft).

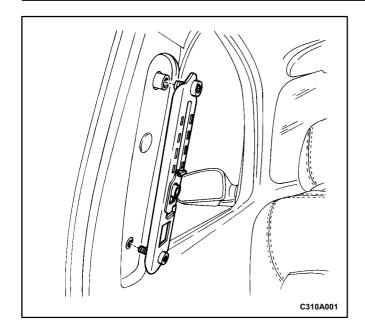


- 5. Install the seat belt anchor plastic cap to its original position.
- 6. Install the lower B-pillar trim panel. Refer to *Section* 9G, *Interior Trim*.
- 7. Install the lower B-pillar seat belt anchor.

#### **Tighten**

Tighten the seat belt anchor bolts to 35 N•m (26 lb•ft).

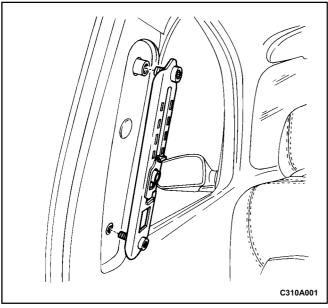
8. Install the seat belt anchor plastic cap to its original position.



# FRONT SEAT BELT HEIGHT ADJUSTER

#### **Removal Procedure**

- 1. Remove the upper B-pillar trim panel. Refer to Section 9G, Interior Trim.
- 2. Remove the bolts and the seat belt height adjuster.



#### **Installation Procedure**

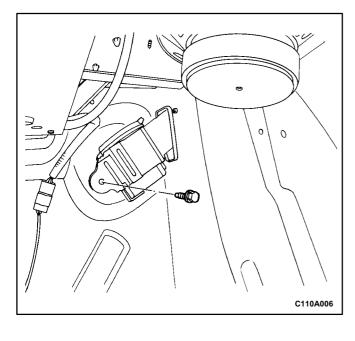
**Notice:** Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.

1. Install the seat belt height adjuster with the bolts.

#### **Tighten**

Tighten the front seat belt height adjuster bolts to 19 N•m (14 lb•ft).

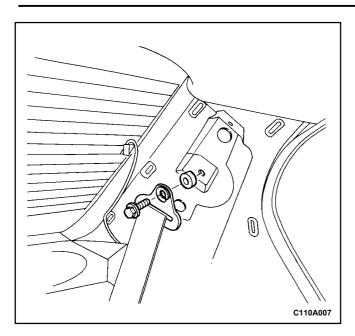
2. Install the upper B-pillar trim panel. Refer to Section 9G, Interior Trim.



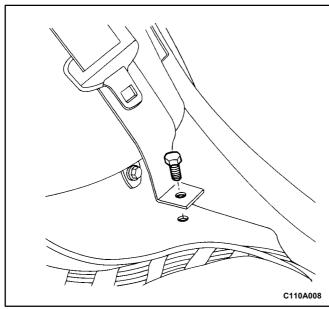
# THREE-POINT ELR REAR OUTBOARD SEAT BELT

#### **Removal Procedure**

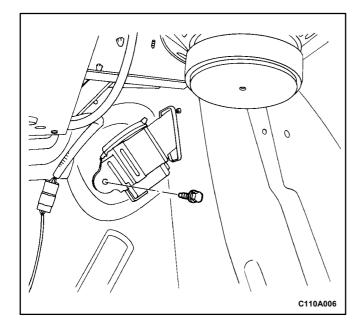
- 1. Remove the deck lid sill plate cover and the luggage compartment wheelhouse trim panel. Refer to Section 9G, Interior Trim.
- 2. Remove the bolt and the luggage compartment seat belt anchor.



3. Remove the bolt and the C-pillar seat belt anchor.



- 4. Remove the bolt and the floor seat belt anchor.
- 5. Remove the seat belt.



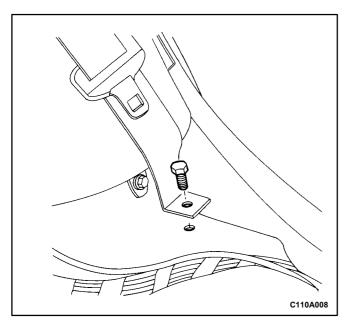
#### **Installation Procedure**

**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 luggage compartment seat belt anchor with the bolt.

#### **Tighten**

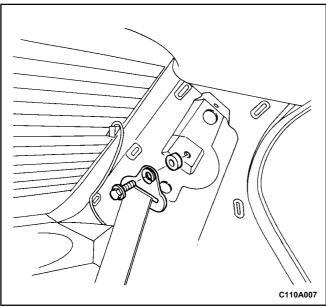
Tighten the seat belt anchor bolt to 35 N•m (26 lb•ft).



- 2. Feed the free end of the seat belt from the luggage compartment through the deck lid sill plate.
- 3. Install the floor seat belt anchor with the bolt.

#### **Tighten**

Tighten the seat belt anchor bolt to 35 N•m (26 lb•ft).

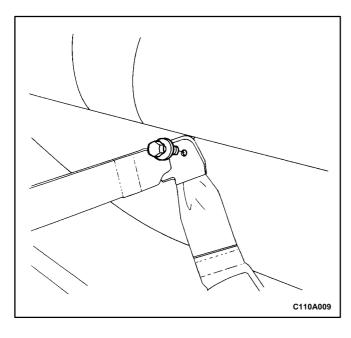


4. Install the C-pillar seat belt anchor with the bolt.

#### **Tighten**

Tighten the seat belt anchor bolt to 35 N•m (26 lb•ft).

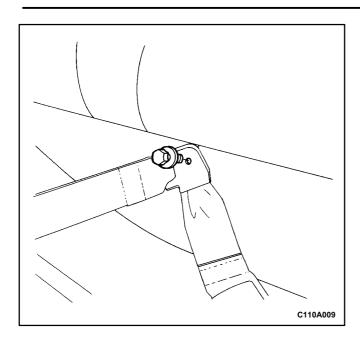
5. Install the deck lid sill plate cover and the luggage compartment wheelhouse trim panel. Refer to Section 9G, Interior Trim.



# TWO-POINT LAP REAR CENTER SEAT BELT

#### **Removal Procedure**

- 1. Remove the rear seat cushion. Refer to Section 9H, Seats.
- 2. Remove the bolts and the seat belt anchors.



#### **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 seat belt anchors with the bolts.

#### **Tighten**

Tighten the seat belt anchor bolts to 35 N•m (26 lb•ft).

2. Install the rear seat cushion. Refer to Section 9H, Seats.

# GENERAL DESCRIPTION AND SYSTEM OPERATION

#### DRIVER SEAT BELT REMINDER

The driver's safety belt incorporates a safety belt reminder light in the I/P cluster to remind the driver if the safety belt is not fastened when the the ignition is turned ON.

## THREE-POINT ELR FRONT SEAT BELT

The three-point emergency locking retractor (ELR) front seat belt is always unlocked, allowing the passenger freedom of movement, except in emergencies (rapid deceleration, rapid acceleration, or hard cornering maneuvers).

## THREE-POINT ELR REAR OUTBOARD SEAT BELT

The rear outboard seating positions use the three-point emergency locking retractor (ELR) seat belts. The three-point ELR seat belt is always unlocked, allowing the passenger freedom of movement, except in emergencies (rapid deceleration, rapid acceleration, or hard cornering maneuvers).

## TWO-POINT LAP REAR CENTER SEAT BELT

The two-point lap rear center seat belt is a single continuous length of webbing. The webbing is routed from the anchor through a latch plate and into a single retractor.

#### CHILD SEAT TETHER ANCHOR

There are three child seat tether anchors located on the rear deck lid sill plate. There is one anchor for each rear seat position.

# OPERATIONAL AND FUNCTIONAL CHECKS

#### Caution:

- Keep sharp objects and potentially damaging objects away from the seat belts.
- Avoid bending or damaging any portion of the buckle or the latch plate.
- Do not bleach or dye the belt webbing. Use only mild soap and water in order to clean the belts.
- When installing the seat belt anchor bolts and the screws, start the bolts and the screws by hand in order to prevent cross threading.
- Do not attempt any repairs on the retractor mechanisms or the covers. Replace any defective assemblies with new assemblies.
- Replace any belts that are cut or damaged in any way.
- 1. Inspect all seat belt anchor bolts and the screws in order to verify that they are secure.
- 2. Inspect the seat belt buckle. The buckle must lock and unlock easily.
- 3. After inserting the latch into the buckle, tug sharply on the belt. The buckle must remain locked.
- 4. Fully extend the shoulder belt portion to make sure that there is no twisting or tears in the belt.
- 5. Let the shoulder belt retract fully. The belt should retract easily.