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Fastener Tightening Specifications

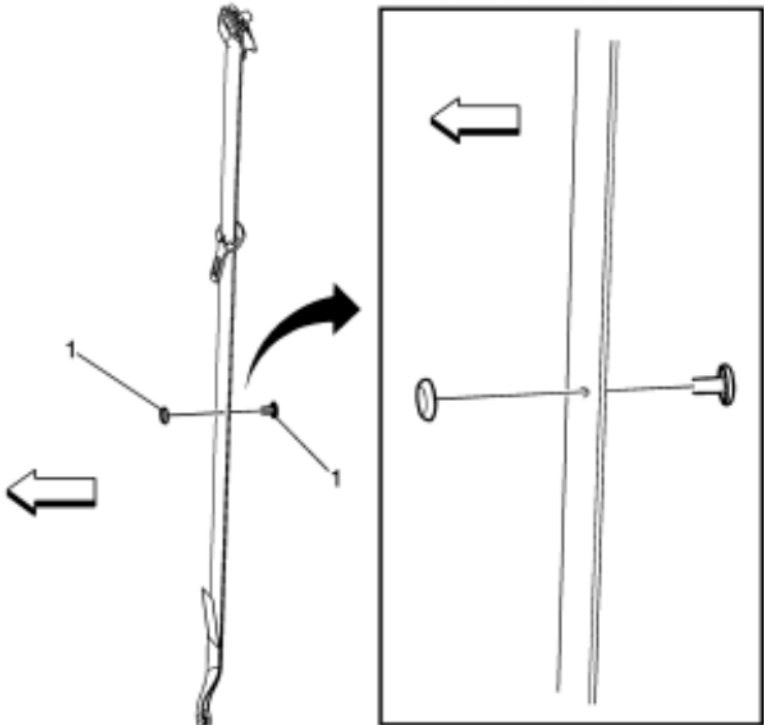
Application	Specification	
	Metric	English
Driver or Passenger Seat Belt Buckle Fastener	45 N·m	33 lb ft
Driver or Passenger Seat Shoulder Belt Fastener	45 N·m	33 lb ft
Front Seat Shoulder Belt Guide Adjuster Bolt	45 N·m	33 lb ft
Rear Seat Belt Buckle Fastener	45 N·m	33 lb ft
Rear Seat Center Shoulder Belt Buckle Fastener	45 N·m	33 lb ft
Rear Seat Shoulder Belt Anchor Plate Fastener	45 N·m	33 lb ft
Rear Seat Shoulder Belt Retractor Fastener	45 N·m	33 lb ft

Repairs and Inspections Required After a Collision

- Warning:** 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.

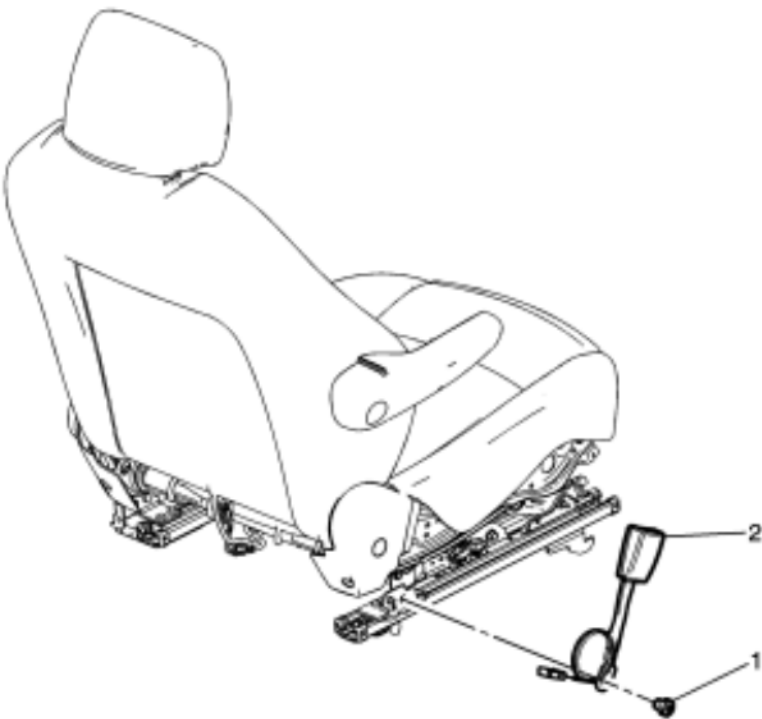
After a minor collision where no automatic restraint device was deployed, seat belt system replacement may not be necessary, unless some of the parts are torn, worn, or damaged.

Seat Belt Latch Stop Installation



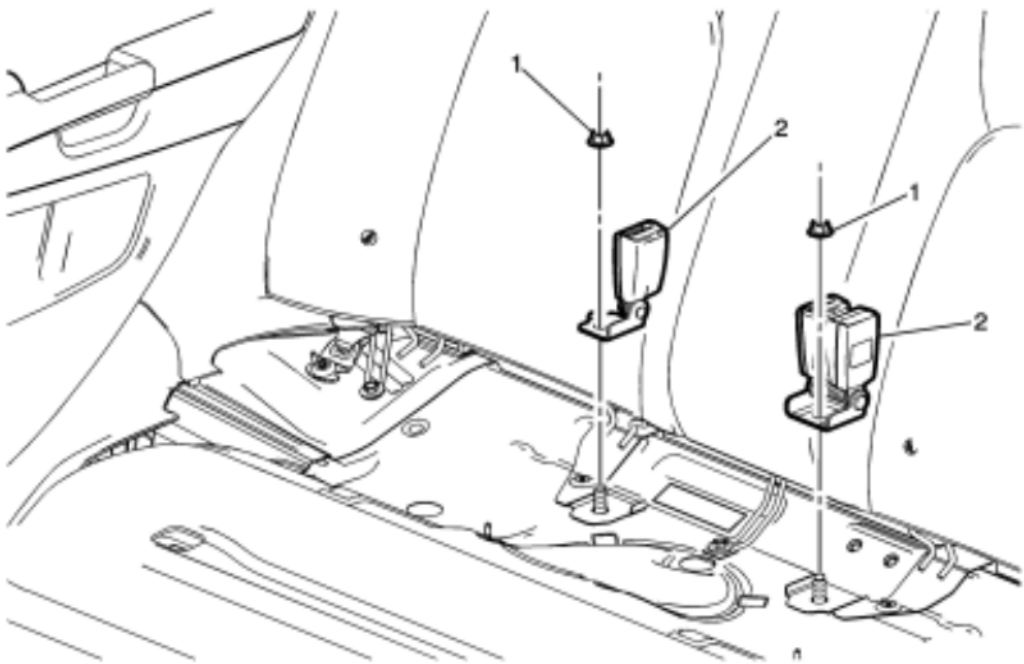
Callout	Component Name
Preliminary Procedure 1. Locate the hole in the seat belt webbing where the original seat belt stop button was located. 2. If the original hole in the seat belt webbing is not visible, perform the following: If either the right or left stop button is missing use the opposing seat belt as a reference. With the opposing seat belt fully stowed, measure the distance between the seat belt lower anchor and the stop button. Using the measurement obtained above, measure and mark the location of the missing stop button on the center of the seat belt webbing. • If either the right or left stop button is missing use the opposing seat belt as a reference. • With the opposing seat belt fully stowed, measure the distance between the seat belt lower anchor and the stop button. • Using the measurement obtained above, measure and mark the location of the missing stop button on the center of the seat belt webbing. 3. Ensure the seat belt latch plate is located above the mark or original hole.	
1	Seat Belt Stop Button Procedure 1. Work the male half of the stop button through the hole in the webbing or at the marked location. 2. Align the female half of the stop button with the male half of the stop button. 3. Snap the two halves together. 4. Trim off any excess of the male half of the stop button flush with the female half of the stop button. Tip Ensure the male half of the stop button is facing forward in the vehicle in order to ensure the stop button will not snag customers clothing.

Front Seat Belt Buckle Replacement



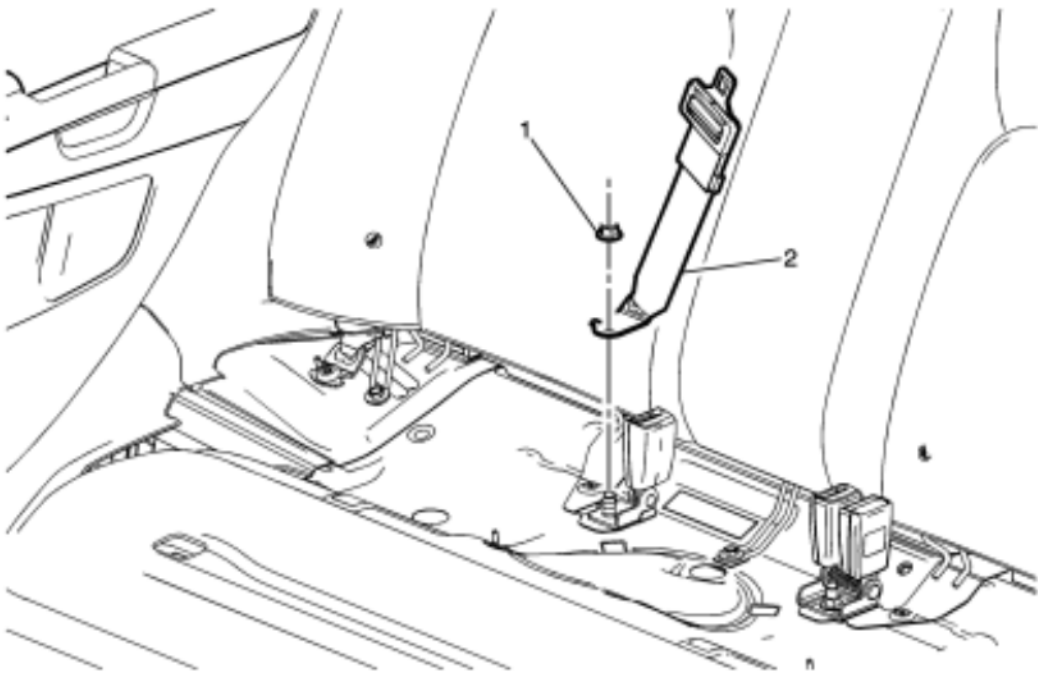
Callout	Component Name
Preliminary Procedures Remove the front seat. Refer to Driver or Passenger Seat Replacement .	
1	Driver or Passenger Seat Belt Buckle Fastener Caution: Refer to Fastener Caution . Tighten 45 N·m (33 lb ft)
2	Driver or Passenger Seat Belt Buckle Assembly Procedure Disconnect the electrical connector, if equipped.

Rear Seat Belt Buckle Replacement



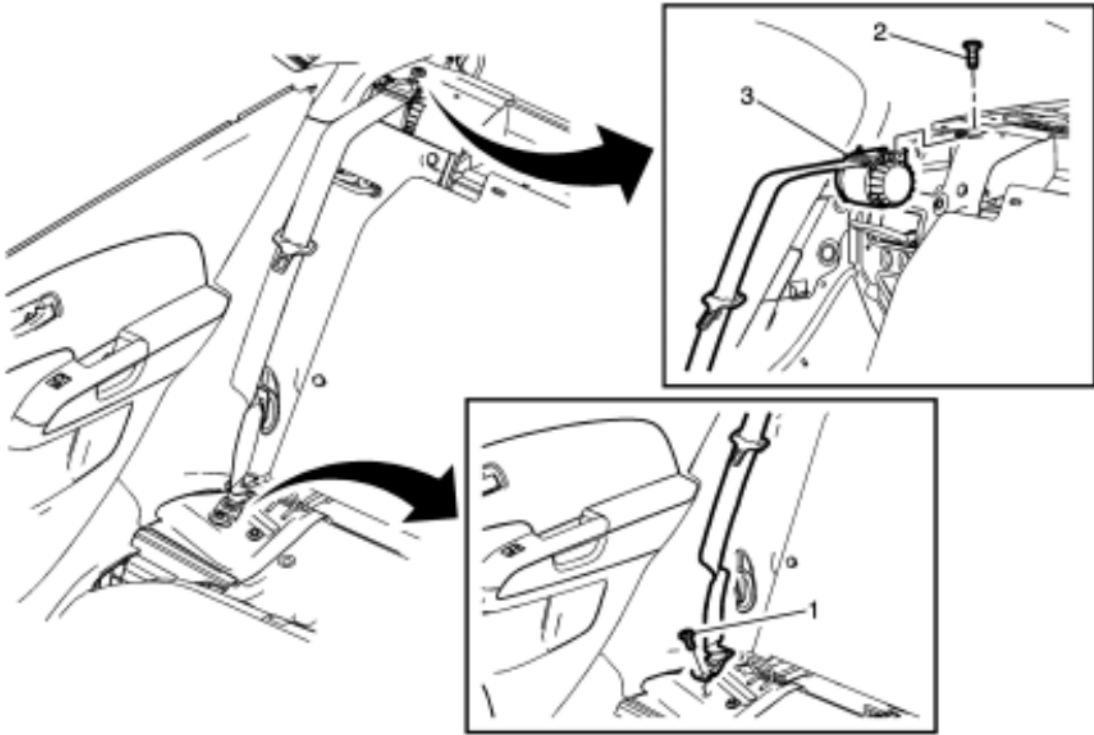
Callout	Component Name
Preliminary Procedure Remove the rear seat cushion. Refer to Rear Seat Cushion Replacement .	
1	Rear Seat Belt Buckle Fastener (Qty: 2) Caution: Refer to Fastener Caution . Tighten 45 N·m (33 lb ft)
2	Rear Seat Belt Buckle Assembly (Qty: 2)

Rear Seat Center Shoulder Belt Replacement (Sedan)



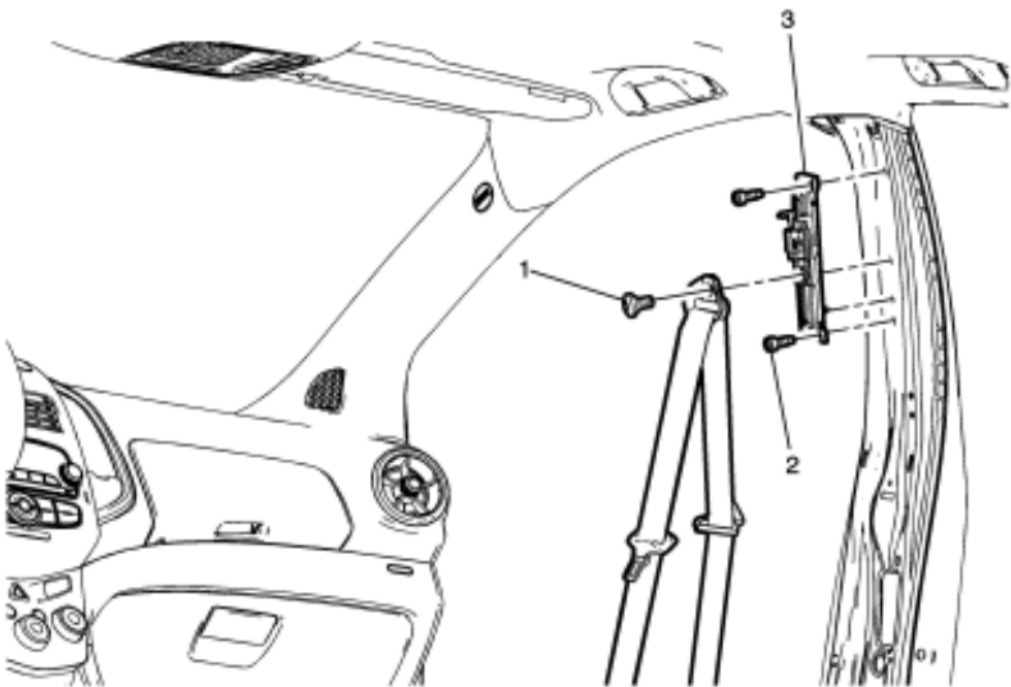
Callout	Component Name
Preliminary Procedures Remove the rear seat cushion. Refer to Rear Seat Cushion Replacement .	
1	Rear Seat Center Shoulder Belt Buckle Fastener Caution: Refer to Fastener Caution . Tighten 45 N·m (33 lbft)
2	Rear Seat Center Shoulder Belt

Shoulder Belt Replacement - Rear (Sedan)



Callout	Component Name
Preliminary Procedure Remove the rear window panel trim. Refer to Rear Window Panel Trim Replacement .	
1	Rear Seat Shoulder Belt Anchor Plate Fastener Caution: Refer to Fastener Caution . Tighten 45N·m (33 lb ft)
2	Rear Seat Shoulder Belt Retractor Fastener Tighten 45N·m (33 lb ft)
3	Rear Seat Shoulder Belt

Front Seat Belt Guide Adjuster Replacement (with AHU)



Callout	Component Name
Preliminary Procedures Remove the center pillar upper trim panel. Refer to Center Pillar Upper Trim Panel Replacement .	
1	Driver or Passenger Seat Shoulder Belt Fastener Caution: Refer to Fastener Caution . Tighten 45 N·m (33 lb ft)
2	Front Seat Shoulder Belt Guide Adjuster Bolt (Qty: 2) Tighten 45 N·m (33 lb ft)
3	Front Seat Shoulder Belt Guide Adjuster

Seat Belt System Description and Operation

Restraint System

Note: If the vehicle has been in a collision, refer to [Repairs and Inspections Required After a Collision](#) .

The vehicle has front and rear seat belts that are the primary means of occupant restraint. Seat belts help to keep the occupants inside the passenger compartment and to gradually reduce the impact forces during the following events:

- Frontal impact type crashes
- Rear impact type crashes
- Side impact type crashes
- Roll-over type crashes

All seat belt retractors have emergency locks. The retractors remain unlocked during normal operation and under normal driving conditions. The retractors remain unlocked during normal conditions in order to allow free movement of the upper body of each occupant. A pendulum locks the seat belt webbing into position. The pendulum causes a locking bar to engage a cog on the spool of the retractor mechanism when the following conditions occur:

- A rapid extraction of the seat belt webbing from the retractor
- An abrupt change in vehicle speed
- An abrupt change in vehicle direction
- Operation of the vehicle on a steep upgrade
- Operation of the vehicle on a downgrade

The seat belts have an automatic locking (cinch) feature. The cinch feature is activated when the seat belt webbing is completely extended from the retractor. The cinch feature prevents the webbing from extending beyond the position from which it is allowed to retract. Use of the cinch feature is recommended for securing a child seat. The cinch feature may be cancelled by allowing the webbing to wind back completely into the retractor. After the cinch feature is cancelled, the webbing is unlocked. After the cinch feature is cancelled, the webbing will extend from the retractor. This vehicle is also equipped with a supplemental inflatable restraint (SIR) system. Refer to [SIR System Description and Operation](#) .

Front Seat Belt System

The front seat belt system includes a driver and passenger seat belt pretensioner retractor and anchor. Both front seat belt pretensioners includes a seat belt switch in the seat buckle which controls a reminder lamp and a tone alarm.

Note: The front passenger seat is equipped with a passenger presence detection sensor, which detects an occupant. If the passenger presence detection sensor detects an empty front passenger seat, then the passenger fasten safety belt indicator will be disabled.

- When the driver seat belt is buckled and the ignition switch is turned ON, the following events will occur:
 - The tone alarm will not operate.
 - The reminder lamp will not operate.
- When the passenger seat belt is buckled with an occupant sitting in the passenger front seat, then the ignition switch is turned ON, the following events will occur:
 - The tone alarm will not operate.
 - The reminder lamp, which is located within the hazard warning switch, will not be turned ON.
- When the driver seat belt is not buckled and the ignition switch is in the ON position, the following events will occur:
 - The tone alarm will operate for 4–8seconds and then go OFF.
 - The fasten safety belt indicator will turn ON for 20seconds, until the driver seat belt is buckled.
- When the passenger seat belt is not buckled with an occupant sitting in the passenger front seat, then the ignition switch is turned ON, the following events will occur:
 - The tone alarm will operate for 4–8seconds and then go OFF.
 - The reminder lamp, which is located within the hazard warning switch, will be turned ON.

Rear Seat Belt System

The Rear Seat Belt System includes the following components:

- The rear seat belt retractor is located at the wheelhouse panel and attached to the floor panel by the rear seat shoulder belt retractor bracket.
- The rear seat belt buckles and the center seat belt buckle are attached to each seat.
- Each of the rear seat belts include a seat belt switch in the seat buckle which controls a reminder lamp and a tone alarm.
- When the ignition switch is turned ON, a rear seat belt is buckled, the rear doors are closed and the speed exceeds 10kph (6.5mph) the following events will occur:
 - The tone alarm will not operate.



- The rear seat belt indicator in the Driver Information Center will illuminate for 35 seconds.
- When the ignition switch is turned ON, a rear seat belt is not buckled for the duration of the ignition cycle, the rear doors are closed and the speed exceeds 10kph (6.5mph) the following events will occur:
 - The tone alarm will not operate.
 - The rear seat belt indicator in the Driver Information Center will not operate.
- When the ignition switch is turned ON, a rear seat belt is buckled and during that ignition cycle is unbuckled with the rear doors closed at all times and the speed exceeding 10kph (6.5mph) the following events will occur:
 - The tone alarm will operate for 3 seconds.
 - The rear seat belt indicator in the Driver Information Center will illuminate and remain on until the seat belt is buckled again or the ignition cycle ends.

Child Seat Restraint System

Warning: 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.

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, the seat will need to be anchored. Passengers should not be allowed to sit at locations where the seat belts are being used to secure the child seat.

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 in order 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 ensure 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.

Fasten Safety Belt Indicators

There are three fasten safety belt indicators for this vehicle. The driver fasten safety belt reminder is displayed in the instrument cluster, the passenger fasten safety belt reminder is displayed in the hazard warning switch, and the rear fasten safety belt reminder is displayed in the driver information center. The fasten safety belt indicator may only be ON during RUN. The fasten safety belt indicator illuminates under the following conditions:

- During the bulb check
- The inflatable restraint sensing and diagnostic module (SDM) sends the status of the driver seat belt to the instrument cluster via serial data. The passenger seat belt status is sent to the hazard warning switch via a hard wire. The rear seat belt status is sent to the driver information center via serial data. If any of the seat belts are unfastened, the instrument cluster will send a message requesting a chime sound to be turned ON after a bulb check.

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