

## Repairs and Inspections Required After a Collision DOC # 5807146

**Warning:** Proper operation of the Supplemental Inflatable Restraint (SIR) sensing system requires that any repairs to the vehicle structure return the vehicle structure to the original production configuration. Not properly repairing the vehicle structure could cause non-deployment of the air bag(s) in a frontal collision or deployment of the air bag(s) for conditions less severe than intended.

**Warning:** Do not repair or replace the seat stitching or seams in the seat back trim cover with an internal mounted seat side airbag module. Replace the complete seat back trim cover from the OEM. Non-OEM seat stitching may cause improper airbag deployment which could result in personal injury.

**Note:** General Motors (GM) vehicles, systems and components are engineered, tested and manufactured to protect vehicle occupants based upon both government mandated and internal corporate requirements relative to durability, NVH (noise/vibration/harshness), occupant protection, and vehicle safety. Only authentic Genuine GM Parts are designed, engineered, manufactured and tested to the General Motors internal and government mandated standards and are the only ones equivalent to the original equipment installed on the vehicle.

1. After ANY collision, perform the following belt operational and functional checks:
  - 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.
  - For each seating position:
    1. Inspect the shoulder belt guide to ensure that the seat belt webbing is seated flat in the guide slot and that the seat belt webbing does not bind.
    2. Verify that the seat belt buckle is accessible.
    3. Fully extend the seat belt webbing. Verify that the seat belt webbing does not have any twists or tears.
    4. Allow the seat belt webbing to retract. Verify that the seat belt webbing returns freely and completely back into the retractor.
    5. Snap the seat belt latch plate into the buckle. 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.
    6. Push the button on the buckle. Verify the seat belt latch plate releases easily from the buckle and the button returns to its original position.
2. In instances of vehicle collision where damage is limited to minor outer body panel cosmetic distortion: visually inspect vehicle for extent of damage, repair and replace components as necessary.
3. In instances of vehicle collision where damage exceeds minor outer body panel cosmetic distortion, unrelated components can be subject to damage outside of obvious visual detection method in the area of impact. The table below references components requiring inspection or replacement to promote a safe and quality repair. Some inspections may require disassembly of vehicle components or additional functional tests. If you detect any damage, replace the component.

| Component   | Notes or Additional Instructions  | Exceeds Minor Outer Body Panel Cosmetic Distortion without Airbag Deployment | Pretensioner Deployment | Seat Side Airbag Deployment | Frontal Airbag Deployment |
|---|---|--|-------------------------|-----------------------------|---------------------------|
| <b>Brakes &amp; Steering</b>                        |   |  |                         |                             |                           |
| Brake Pedal   | —   | Inspect  | Inspect                 | Inspect                     | Inspect                   |
| Steering Column                                     | Refer to Steering Column Accident Damage Inspection in Steering Column and Wheel.   | Inspect  | Inspect                 | Replace                     | Replace                   |
| Steering Wheel                                      | —   | Inspect  | Inspect                 | Replace                     | Replace                   |
| Steering Wheel Airbag                               | If not deployed, visually inspect the top trim cover of the airbag module for deformation, distortion, or indentations as a result of damage. Replace if found. | Inspect  | Inspect                 | Inspect                     | Replace                   |
| Steering Wheel Air Bag Coil and Coil Wiring Pigtail | If deployed, inspect for melting, scorching, or other damage due to excessive heat.   | —  | —                       | —                           | Inspect                   |
| Steering Wheel Air Bag Mounting Points and Hardware | —   | —  | —                       | —                           | Inspect                   |

Repairs and Inspections Required After a Collision (cont'd)

| Impact Sensors   |   |         |         |         |         |
|--|---|---------|---------|---------|---------|
| Front and/or Side Impact Sensors   | <p>Impact Sensor Replacement Guidelines:</p> <ul style="list-style-type: none"> <li>• The impact sensor replacement policy requires replacing sensors in the area of the accident damage. The area of accident damage is defined as the portion of the vehicle which is crushed, bent, or damaged due to a collision. If the impact sensor or the mounting structure of the impact sensor is damaged, the impact sensor must be replaced.</li> <li>• Replace the impact sensor whether or not the air bags have deployed.</li> <li>• Replace the impact sensor even if it appears to be undamaged.</li> <li>• Impact sensor damage which is not visible, such as slight bending of the mounting bracket or cuts in the wire insulation, can cause improper operation of the SIR system. Do not try to determine whether the impact sensor is undamaged, replace the impact sensor. Also, if you follow a diagnostic trouble code (DTC) procedure and a malfunctioning impact sensor is indicated, replace the impact sensor.</li> </ul> | Replace | Replace | Replace | Replace |
| Impact Sensors Mounting Points and Hardware                                  | —   | Inspect | Inspect | Inspect | Inspect |
| Instrument Panel   |   |         |         |         |         |
| Instrument Panel Cross Car Beam  | —   | Inspect | Inspect | Inspect | Inspect |
| Instrument Panel Knee Bolsters and Mounting Points                           | —   | Inspect | Inspect | Inspect | Inspect |
| Instrument Panel Mounting Points and Instrument Panel Brackets, Braces, etc. | —   | Inspect | Inspect | Inspect | Inspect |
| Instrument Panel Air Bag Mounting Points and Hardware                        | —   | Inspect | Inspect | Inspect | Inspect |
| Instrument Panel Airbag  | Visually inspection the top trim cover of the airbag module for deformation, distortion, or indentations as a result of damage. Replace if deformation, distortion, or indentations are found.  | Inspect | Inspect | Inspect | Replace |

## Repairs and Inspections Required After a Collision (cont'd)

|  |   |         |         |         |         |
|--|---|---------|---------|---------|---------|
| Knee Airbag                                    | Visually inspect the top trim cover of the airbag module for deformation, distortion, or indentations as a result of damage. Replace if deformation, distortion, or indentations are found.                                 | Inspect | Inspect | Inspect | Replace |
| <b>Roof and Interior Trim</b>                  |   |         |         |         |         |
| Roof and Headliner Mounting Points             | —   | Inspect | Inspect | Inspect | Inspect |
| Door trim assembly                             | On Side of Impact. Visually inspect door trim assembly for deformation or distortion as a result of damage. Replace if deformation or distortion is found.  | Inspect | Inspect | Inspect | —       |
| Trim Mounting Points and Hardware              | On Side of Impact   | —       | Inspect | Inspect | —       |
| Roof Rail Airbag Mounting Points and Hardware  | On Side of Impact   | —       | Inspect | Inspect | —       |
| Roof Rail Airbag                               | On Side of Impact. If not deployed, visually inspect roof trim for deformation or distortion as a result of damage. Replace if found.   | Inspect | Inspect | Replace | —       |
| <b>Seats</b>                                   |   |         |         |         |         |
| Seats and Seat Mounting Points                 | —   | Inspect | Inspect | Inspect | Inspect |
| Seat Back Cover                                | If Side Air Bag(s) Deployed. If not deployed, visually inspect seat back cover and top trim cover of the airbag modules for deformation or distortion as a result of damage. Replace if deformation or distortion is found. | Inspect | Inspect | Replace | Inspect |
| Seat Side Air Bag                              | If Deployed   | —       | —       | Replace | Replace |
| Seat Side Air Bag Mounting Points and Hardware | If Side Air Bag(s) Deployed   | —       | —       | Inspect | Inspect |
| Seat Adjuster                                  | —   | —       | —       | Inspect | —       |
| Seat Back Frame                                | —   | —       | —       | Inspect | —       |
| Seat Cushion Frame                             | —   | —       | —       | Inspect | —       |
| Seat Cushion Side Covers and Switches          | On Side of Impact   | —       | —       | Inspect | —       |
| Seat Recliner and Cover                        | If Equipped   | —       | —       | Inspect | —       |

Repairs and Inspections Required After a Collision (cont'd)

| Seat Belts   |  |         |         |         |         |
|--|--|---------|---------|---------|---------|
| Seat Belt System   | <p>This applies to seat belt systems in use by people of adult size, seat belt systems used to secure child restraints, infant carriers, and booster seats, including LATCH system and top tether anchorages.</p> <p><b>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.</b></p> <ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Replace any seat belt system that has torn, worn, or damaged components.</li> <li>3. 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.</li> <li>4. Replace any seat belt system if you are doubtful about its condition.</li> </ol> | Inspect | —       | —       | —       |
| Seat Belt Anchor and/or Retractor Pretensioners  | —  | Inspect | Replace | Replace | Replace |
| Seat Belt Anchor and/or Retractor Pretensioners Mounting Points and Hardware   | Visually verify the seat belt retractor units are securely attached and the seat belt anchor bolts are secure.   | Inspect | Inspect | Inspect | Inspect |
| Sensing and Diagnostic Module (SDM)  |  |         |         |         |         |
| Inflatable Restraint Sensing and Diagnostic Module (SDM) or Restraints Control Module (RCM)                              | Replace only if module has set DTC B0052 (or other related SDM DTCs) or DTC B1A33 (or other related RCM DTCs) and will not clear.  | —       | Replace | Replace | Replace |
| Inflatable Restraint Sensing and Diagnostic Module (SDM) or Restraints Control Module (RCM) Mounting Points and Hardware | —  | —       | Inspect | Inspect | Inspect |