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## General Motors Position Statement Safety System (incl Seat Belts) Repairs and Inspections Required After a Collision

This document is to be referenced in conjunction with *DOC 5807146 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.

### Accident with or without Air Bag Deployment – Component Inspections

**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.

After any collision, inspect the following components as indicated. If you detect any damage, replace the component. If you detect any damage to the mounting points or mounting hardware, repair the component or replace the hardware as needed.

- The steering column—Inspect the steering column for bending, twisting, buckling or any type of damage.
- The steering wheel – Inspect for bending, twisting, buckling or any type of visible damage. Replace the steering wheel if the steering wheel airbag has deployed.
- The instrument panel knee bolsters and mounting points—Inspect the knee bolsters for bending, twisting, buckling, or any other type of damage.
- The instrument panel brackets, braces, etc.—Inspect for bending, twisting, buckling, or any other type of damage.
- The seat belts—Perform the seat belt operational and functional checks.
  - Refer to: *DOC 5807146 Repairs and Inspections Required After a Collision*.
- The instrument panel cross car beam—Inspect for bending, twisting, buckling, or any other type of damage.
- The instrument panel mounting points and brackets—Inspect for bending, twisting, buckling, or any other type of damage.
- The seats and seat mounting points—Inspect for bending, twisting, buckling, or any other type of damage.
- The roof and headliner mounting points.
- The brake pedal --Inspect the brake pedal for bending, twisting, buckling or any type of damage.

#### Accident with Frontal Air Bag Deployment – Component Replacement and Inspections

After a collision involving air bag deployment, replace the following components.

- Driver Steering Wheel Air Bag
- Passenger instrument panel air bag, if deployed
- Inflatable Restraint Sensing and Diagnostic Module (SDM), if the Inflatable Restraint Sensing and Diagnostic Module has set DTC B0052 and will not clear
- Front and/or Side Impact Sensors
- Driver/Passenger Seat Side Air Bag, if deployed
- Seat back cover if Side Seat Air Bag is deployed
- Driver/Passenger Seat Belt Anchor and/or Retractor Pretensioners

Perform additional inspections on the following components.

- Steering wheel air bag coil and the coil wiring connector—Inspect for melting, scorching, or other damage due to excessive heat. If damage is found, replace the component.
- Passenger instrument panel air bag wiring connector—Inspect for melting,



- scorching, or other damage due to excessive heat. If damage is found, replace the connector. Refer to Wiring Repairs information on GM Service Information (GMSi).
- Mounting points or mounting hardware for the passenger instrument panel air bag, steering wheel air bag, Inflatable Restraint Sensing and Diagnostic Module, seat side air bag (if deployed) and seat belt anchor and/or retractor pretensioners—Inspect for any damage and repair or replace each component as needed.

#### Accident with Side Seat Air Bag Deployment – Component Replacement and Inspections

After a collision involving driver/passenger side seat air bag deployment, replace the following components.

- Left/right side impact sensors on the side of the impact.
- Left/right roof rail air bag on the side of the impact.
- Inflatable Restraint Sensing and Diagnostic Module (SDM), if the Inflatable Restraint Sensing and Diagnostic Module has set DTC B0052 and will not clear.
- Inflatable Restraint Seat Belt Anchor and/or Retractor Pretensioner.
- Driver or passenger seat back cushion cover replacement.
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**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.

Perform additional inspections on the following components.

- Mounting points or mounting hardware for the side impact sensors, and driver/passenger side seat air bags on the side of impact—Inspect for any damage and repair or replace each component as needed.
- Mounting points, mounting hardware, headliner and trim pieces for the left/right roof rail air bag on the side of impact—Inspect for any damage and repair or replace each component as needed.
- Mounting points or mounting hardware for the Inflatable Restraint Sensing and Diagnostic Module and seat belt anchor and/or retractor pretensioners—Inspect for any damage and repair or replace each component as needed.
- The seat cushion frame
- The seat recliner and cover, if equipped
- The seat adjuster
- The seat back frame
- Door trim assembly
- Impacted seat cushion side covers and switches



## Accident with Seat Belt Pretensioner Deployment Only – Component Replacement and Inspections

After a collision involving driver/passenger Seat Belt Retractor or Anchor Pretensioner deployment, replace the following components.

- Driver and Passenger Inflatable restraint seat belt anchor pretensioner and/or retractor pretensioner
- Inflatable Restraint Sensing and Diagnostic Module (SDM), if the Inflatable Restraint Sensing and Diagnostic Module has set DTC B0052 and will not clear
- Perform additional inspections for any damage and repair or replace each component as needed on the following components.
- Mounting points or mounting hardware for the Inflatable Restraint Sensing and Diagnostic Module
- Mounting points or mounting hardware for the Seat Belt Anchor Pretensioners
- Mounting points or mounting hardware for the Seat Belt Retractor Pretensioners

## Impact Sensor Replacement Guidelines

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.

- Replace the impact sensor whether or not the air bags have deployed.
- Replace the impact sensor even if it appears to be undamaged.

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.

As with all repairs on GM vehicles, General Motors Australia & New Zealand (GMANZ) recommend only the use of brand new Genuine GM Parts from the authorised Australian & New Zealand supply network & the following of the current GM approved Repair Procedures especially when dealing with Safety systems.

*Further details specifically available for each applicable vehicle model – please refer to GM Service Information Document ID # 5525750 – Collision Repair Position Statements.*

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