GM Service Information

Bumper/Fascia Replacement with Advanced Driver Assistance Systems (ADAS)

January 2020

- **General Motors DOES NOT APPROVE the use of aftermarket, reconditioned, or salvage Bumpers/Fascia's on GM vehicles equipped with ADAS.**
- **Aftermarket, reconditioned or salvage Bumpers/Fascia's may have different material specifications than what was designed, tested and validated for use with ADAS.**

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, Noise, Vibration and Harshness (NVH), occupant protection, and vehicle safety. The overall structural integrity of the vehicle is dependent on maintaining its inherent design specifications.

At General Motors, safety is our overriding priority. With the safety of our customers at the center of everything we do, we are limiting repairs to Bumpers/Fascia's with Advanced Driver Assistance Systems (ADAS) to topcoat refinish only. Further, topcoat refinish material thickness of repaired ADAS Bumper Fascia systems must not exceed 13 mils in thickness. Any repairs such as gouges, tears or damage that requires the use of substrate repair material or reinforcement tapes must be avoided.

Primer and topcoat refinish methods can be employed on ADAS equipped Bumper/Fascia systems, provided the total paint mil thickness on any portion of the Bumper/Fascia does not exceed 13 mils. It is necessary that a non-metallic paint film thickness tool be used post repair to ensure material film build on part does not exceed 13 mils in thickness.

<u>Examples of ADAS technology include:</u>

- Ultrasonic Blind Spot Detection • Integrated Brake Assist • Rear Emergency Braking
- Automatic Collision Preparation • Rear Cross-Traffic Alert • Adaptive Cruise Control

Reconditioned Bumpers/Fascia's available in the aftermarket may have been repaired using substrate repair "filler material" or reinforcement tapes and as such General Motors does not endorse the use of reconditioned ADAS Bumper/Fascia systems. Only Genuine GM ADAS Bumpers/Fascias and components are tested and validated as a safety system.

With the continued expansion and use of ADAS safety systems on GM vehicles, it is critically important to be aware of the proper service and replacement requirements for Bumper/Fascia systems. To help preserve the performance of repaired GM vehicles, GM publishes vehicle specific collision repair

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procedures and manufactures and sells Genuine GM Parts. Genuine GM Parts offer the same safety and performance as the parts originally installed on new Chevrolet, Buick, GMC and Cadillac vehicles. Repairing a vehicle using Genuine GM Parts and following GM repair procedures helps ensure that a vehicle is returned to pre-accident condition.

See attachment “A” for additional details

Bumper/Fascia Replacement with Advanced Driver Assistance Systems (ADAS)

Attachment A content:
Using only Genuine GM replacement Bumper/Fascia parts will ensure that the ADAS systems will perform as designed by General Motors. Doing so, upfront, will also reduce cycle time. Aftermarket Bumper/Fascia assemblies may not have been designed, engineered, or tested to operate and perform as intended by GM. Non-original parts can be made of different material, or a slightly different configuration, which may cause the safety functionality to not perform as designed.

The use of non-OEM safety and structural parts and components may compromise the overall crashworthiness and occupant safety of General Motors vehicles in a subsequent collision.

Bumper/Fascia Repair
Depending on vehicle build configuration, the Bumper/Fascia system may have ADAS sensors attached to the inner surface that are not visible from the exterior of the vehicle (Please refer to Figure 1.1). GM is limiting repairs to these Bumper/Fascia systems on vehicles equipped with ADAS.

Figure 1.1

These repairs are defined as:

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(1) ***Bumper/Fascia Substrate Damage***

Any Bumper/Fascia equipped with ADAS(s) that requires substrate repair must be replaced. An example of substrate repair is shown in Figure 1.2

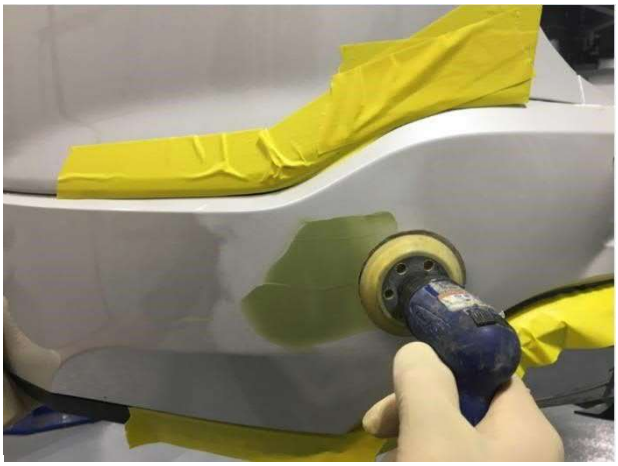

Figure 1.2

(2) ***Paint Refinish Repairs***

Paint repairs can be made, provided that the total paint mil thickness on any portion of the Bumper/Fascia does not exceed 13 mils. (Appropriate paint mil gauge should be used).

NOTE: Paint MIL gauge such as Figure 1.3, can determine paint film thickness on a non-metallic surface.

PosiTector 200 by DeFelsko, shown in

Figure 1.3

Safety is General Motors' overriding priority. When repairing GM vehicles, it is important to follow GM OEM repair procedures and use Genuine GM Parts to help ensure that the ADAS systems will continue to perform as designed by General Motors.

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Important Advanced Driver Assistance Systems Considerations

Overall Impact

The overall integrity and performance of a vehicle's Advanced Driver Assist Systems (ADAS) is dependent on maintaining the design specifications of each component of the safety system. Aftermarket or non-Genuine parts and accessories, reconditioned or salvage parts may have different material or dimensional specifications than what was designed, tested and validated for use with Advanced Driver Assist Systems (ADAS) and are not approved for use by General Motors.

Examples of Advance Driver Assist Systems (ADAS) include, but not limited to:

Adaptive Cruise Control	*Traffic Sign Memory*	*Front and Rear Parking Assist*
Forward Collision Alert	*Collision Imminent Braking*	*Surround Vision*
Automatic High Beam	*Following Distance Indicator*	*Night Vision*
Glare Free High Beam	*Head Up Display*	*Super Cruise*
Lane Departure Warning	*Side Blind Zone Alert*	*Lane Change on Demand*
Lane Keep Assist	*Automatic Parking Assist*	
Front Pedestrian Braking	*Rear Cross Traffic Alert*	

Obstructing ADAS Sensor Areas (radars, cameras, etc.)

The overall operational integrity of Advanced Driver Assist System (ADAS) features is dependent on maintaining its inherent design specifications. The use of Aftermarket or non-Genuine parts and accessories in ADAS sensor areas including but not limited to the front bumper, front grill, below the front grill, license plate covers, headlamps, windshield, front and rear side panels, mirrors, rear camera lens, and rear bumper area is not recommended due to the potential for degradation of ADAS feature functionality.

Addition of protective covers, protective film, decorative / cosmetic wraps, stickers, window tint, magnets, hood protectors, push bars, bicycle racks, cargo racks, light bars, oversized roof cargo can all adversely affect ADAS system feature performance.

Vehicle Modifications

Non-Genuine lift / lowering kits, wheel rims and tires, suspension / steering and other components or modifications that impact ride height, alignment angles and vehicle dynamics / handling are not recommended. Covering or any modification to the windshield blackout is not recommended. Any of these types of modifications are not recommended due to the potential for degradation of ADAS feature functionality.

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