

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



**Reference Number:** N162048170

**Release Date:** October 2016

**Revision:** 02

**Revision Description:** This bulletin is being revised to include the customer notification letter, update Step 2 of Programming SDM section, and add tips within the service procedure sections. Please discard all previous copies of bulletin 16007-01.

**Attention:** It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

All involved vehicles that are in dealer inventory must be held and not delivered to customers, dealer traded, or used for demonstration purposes until the repair contained in this bulletin has been performed on the vehicle.

Make	Model	Model Year		RPO	Description
		From	To		
Buick	Encore	2014	2017		
Buick	LaCrosse	2014	2016		
Cadillac	Escalade	2015	2017		
Cadillac	Escalade ESV	2015	2017		
Chevrolet	Caprice	2014	2017		
Chevrolet	Corvette	2014	2017		
Chevrolet	Silverado	2014	2017		
Chevrolet	Spark EV	2014	2016		
Chevrolet	SS	2014	2016		
Chevrolet	Suburban	2015	2017		
Chevrolet	Tahoe	2015	2017		
Chevrolet	Trax	2014	2017		
GMC	Sierra	2014	2017		
GMC	Yukon	2015	2017		
GMC	Yukon XL	2015	2017		

Involved vehicles are marked "open" on the Investigate Vehicle History screen in GM Global Warranty Management system. This site should always be checked to confirm vehicle involvement prior to beginning any required inspections and/or repairs.

<b>Condition</b>	General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2014-2017 model year Chevrolet Silverado LD, GMC Sierra LD, Buick Encore, Chevrolet Trax, Chevrolet Caprice Police, and Chevrolet Corvette vehicles, 2014-2016 model year Buick Lacrosse, Chevrolet Spark EV, and Chevrolet SS vehicles and 2015-2017 model year Chevrolet Silverado HD, GMC Sierra HD, GMC Yukon, GMC Yukon XL, Cadillac Escalade Cadillac Escalade ESV, Chevrolet Suburban, and Chevrolet Tahoe vehicles. The sensing and diagnostic module (SDM) in these vehicles, which controls airbag and pretensioner deployment, contains a software defect which may prevent the deployment of frontal airbags and pretensioners in certain rare circumstances. If the frontal airbags and seatbelt pretensioners do not deploy when required, there is an increased risk of injury to occupants in a crash.
<b>Correction</b>	Reprogram the SDM with new software that eliminates this defect. In vehicles with any previous deployment events recorded in the SDM, the dealers will replace the existing SDM with a new SDM containing the latest software.

### Parts

Note: If a replacement is required, use the VIN and the GM Electronic Parts Catalog (EPC) to determine which SDM to order. It is estimated that only 1% of involved vehicles will require SDM replacement. Due to limited initial parts availability, dealers are encouraged not to order recall parts for use as shelf stock.

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



### Warranty Information

Labor Operation	Description	Labor Time	Trans. Type	Net Item
9102276	Inspect Inflatable Restraint Sensing and Diagnostic Module Calibrations	0.2	ZFAT	N/A
	Add: Inflatable Restraint Sensing and Diagnostic Module Reprogramming with SPS	0.1		
9102561	Replace Airbag Sensing and Diagnostic Module (Includes Programming)	*	ZFAT	N/A
9102553	Customer Reimbursement Approved	0.2	ZFAT	**
9102554	Customer Reimbursement Denied – For USA dealers only	0.1	ZFAT	N/A

Note: To avoid having to “H” route the customer reimbursement for approval, it must be submitted prior to the repair transaction.

\* Refer to *Airbag Sensing and Diagnostic Module Replacement* in the LTG for the appropriate labor time on the make and model being repaired.

\*\* The amount identified in “Net Item” should represent the dollar amount reimbursed to the customer.

### Note: (FOR US DEALERS ONLY)

Based on the large volume of involved vehicles in dealer inventory, please review section 3.2.9 of the GM Service Policies & Procedures Manual regarding Technician Identification and Accounting of Labor. This section states....”For multiple vehicles requiring reprogramming, as well as service update bulletins and field actions involving inspections only (No parts replacement), the technician is not required to punch on/off time tickets by job card.”

### Service Procedure

**Note:** Carefully read and follow the instructions below.

- DO NOT attempt to order the calibration number from GM Customer Care and Aftersales. The calibration numbers required for this service procedure are programmed into control modules via a Multiple Diagnostic Interface (MDI) with the calibration update. If you cannot access the calibration, call the Techline Customer Support Center and it will be provided.
- DO NOT program a control module unless directed to by a service procedure or a service bulletin. If the control module is not properly configured with the correct calibration software, the control module will not control all of the vehicle features properly.
- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. When required install the *EL-49642* SPS Programming Support Tool to maintain system voltage. If not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- During the programming procedure, follow the SPS prompts for the correct ignition switch position.
- The air bag indicator light may remain ON after the body control module (BCM), or Inflatable Restraint Sensing and Diagnostic Modules replaced, and during the programming procedure for the BCM until after the procedure is completed. When installing a new Inflatable Restraint Sensing and Diagnostic Module, there may be several DTCs set prior to programming. Once programmed, these DTCs should be in history and can be cleared.
- Failure to complete the following Setup procedure may cause DTC B1001 to be set in the Inflatable Restraint Sensing and Diagnostic Module.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



### Programming SDM

**Note:** If programming fails, before contacting TCSC, refer to the “Unable to Program SDM” section below to note the value of the parameter name “Software Module 1 Identifier” and “Software Module 2 Identifier”.

#### Pre-SPS Programming Tips

- Verify the vehicle is not in “Transport Mode” before beginning programming.
  - Record and clear all DTC’s in the vehicle before reprogramming the SDM.
1. Access the Service Programming System (SPS) and follow the on-screen instructions.
  2. On the SPS Supported Controllers screen, select K36 Inflatable Restraint Sensing and Diagnostic Module - Programming and Setup and follow the on-screen instructions.

Controller	Id	Current #	Selected #	
K36	1	13518038	13518038	New Operating System per Product Safety Recall 16007
	2	23426783	23426783	New calibration with performance improvements.
	3	23207234	23207234	New calibration with performance enhancements.
K36	238	No data	No data	SDM Setup SDM Primary Key BCM
K36	238	No data	No data	SDM Enable Deployment Loops
K36	238	No data	No data	Yaw Rate Sensor Learn

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- On the Summary screen, inspect for calibration part number 13518038 or 13518017 in the ID 1 Current column as shown. If the Current and Selected values do NOT match then continue K36 Inflatable Restraint Sensing and Diagnostic Module - Programming and Setup.
  - If the Current and Selected values DO match then the vehicle has already been updated, no further action is required.
3. At the end of programming, choose the “Clear All DTCs” function on the SPS screen.
    - If the SDM programming fails, refer to Unable to Program SDM.
    - If the SDM programming is successful, no further action is required.

### Unable to Program SDM

#### SPS Programming Tips

- If there is a deployment loop failure, please make sure the ignition switch is in the “Run” position, not the Accessory position. This typically occurs with push button Start. To verify the ignition switch is in the “Run” position go into GDS2, select the ECM and check for ignition 1 voltage. If it is at 12+ volts the ignition switch is in the correct position.
  - If the message “Attempting to Programming with same Calibration” is shown, verify the latest Operating System Calibration is currently in the SDM by following Step 2 of *Programming SDM* procedure above. If it is, no further action is needed. Close out the field action in IVH.
  - If a Buick Encore displays an E-4491 programming failure, please check that the vehicle was built in TIS2Web as a light duty truck, not a passenger car.
1. Using the GDS2 scan tool, build the vehicle and proceed to the Identification Information screen using the following path: Module Diagnostics>Inflatable Restraint Sensing and Diagnostic Module > Identification Information.

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



Parameter Name	Value
Vehicle Identification Number (VIN)	1GKS2BKXCXGR339753
End Model Part Number	13594413
Base Model Part Number	13590221
Manufacturer's Traceability Number	K116081390P4MA00
Inflatable Restraint Sensing and Diagnostic Module Primary Key	9721
Software Part Number	13518038
Calibration Part Number 1	84219721
Calibration Part Number 2	23207234
Diagnostic Data Identifier	0B11
Software Module 1 Identifier	0 Counts
Software Module 2 Identifier	0 Counts
High Voltage Disable Requested - Crash Event Detected	No
Transmitting Acceleration Sensor Reading on Bus	Enabled

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**Note:** “Software Module 1 Identifier” and “Software Module 2 Identifier” provides deployment or near-deployment event information.

- Note the value for parameter name “Software Module 1 Identifier” and “Software Module 2 Identifier”.
  - If the value is greater than 0 for either of these parameters, replace the SDM. Refer to *Airbag Sensing and Diagnostic Module Replacement* in SI. Print the Identification Information screen and retain it with the Repair Order (RO).
  - If the value for these parameters is 0, attempt to continue programming one more time before contacting the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French). Refer to *Unsuccessful Programming Recovery* in SI. DO NOT use “Proceed with Same VIN” to return to Supported Controllers screen.

### Dealer Responsibility – For USA & Export (USA States, Territories, and Possessions)

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

### Dealer Responsibility – All

All new, used, GM Certified Used, courtesy transportation vehicles, dealer shuttle vehicles, etc. in dealers' possession and subject to this recall must be held and inspected/repared per the service procedure of this bulletin before customers take possession of these vehicles. Involved vehicles must be held and not delivered to customers, dealer-traded, released to auction, used for demonstration, or any other purpose.

All GM Certified Used vehicles currently in the dealers' inventory within the Certified Pre-Owned Inventory System (CPOIS) will be de-certified and must be held and remedied per the service procedure in this bulletin. Upon submitting an accepted/paid warranty transaction in the Global Warranty Management (GWM) system, the vehicle can be re-certified for sale within the CPOIS system, or once again be used in the CTP program.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

### Dealer Reports

For dealers with involved vehicles, a listing with involved vehicles has been prepared and will be provided to U.S. and Canadian dealers through the GM GlobalConnect Recall Reports, or sent directly to export dealers. The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

### Courtesy Transportation – For USA & Canada

Courtesy transportation is available for customers whose vehicles are involved in a product program and still within the warranty coverage period. See General Motors Service Policies and Procedures Manual, Section 6.1.10 – Courtesy Transportation, for details.

### Customer Notification

USA & Canada - General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

Export - Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

### Customer Reimbursement

Customer requests for reimbursement of previously paid repairs to correct the condition described in this bulletin are to be submitted to the dealer prior to or by September 30, 2017. See General Motors Service Policies and Procedures Manual, Section 6.1.11 – Product Field Action Customer Reimbursement Procedure (USA & Canada) or local Policies and Procedures, for details.

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GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the tools, equipment, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your dealer for information on whether your vehicle may benefit from the information.



**We Support  
Voluntary Technician  
Certification**



# IMPORTANT SAFETY RECALL

October 2016

This notice applies to your vehicle, **VIN:** \_\_\_\_\_

Dear General Motors Customer:

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2014-2017 model year Chevrolet Silverado LD, GMC Sierra LD, Buick Encore, Chevrolet Trax, Chevrolet Caprice Police, and Chevrolet Corvette vehicles, 2014-2016 model year Buick Lacrosse, Chevrolet Spark EV, and Chevrolet SS vehicles and 2015-2017 model year Chevrolet Silverado HD, GMC Sierra HD, GMC Yukon, GMC Yukon XL, Cadillac Escalade Cadillac Escalade ESV, Chevrolet Suburban, and Chevrolet Tahoe vehicles. As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we are concerned about your safety and continued satisfaction with our products.

## IMPORTANT

- Your vehicle is involved in GM recall 16007.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

**Why is your vehicle being recalled?**

The sensing and diagnostic module (SDM) in your vehicle, which controls airbag and pretensioner deployment, contains a software defect which may prevent the deployment of frontal airbags and pretensioners in certain rare circumstances. If the frontal airbags and seatbelt pretensioners do not deploy when required, there is an increased risk of injury to occupants in a crash.

**What will we do?**

Your GM dealer will reprogram the SDM with new software that eliminates this defect. If your vehicle has any previous deployment events recorded in the SDM, your dealer will replace the existing SDM with a new SDM containing the latest software. This service will be performed for you at **no charge**. Because of service scheduling requirements, it is likely that your dealer will need your vehicle longer than the actual service correction time of approximately 20 minutes up to two hours.

**What should you do?**

You should contact your GM dealer to arrange a service appointment as soon as possible.

**Did you already pay for this repair?**

Even though you may have already had repairs for this condition, you will still need to take your vehicle to your dealer for additional repairs. If you have paid for repairs for the recall condition, please complete the enclosed reimbursement form and present it to your dealer with all required documents. Working with your dealer will expedite your request, however, if this is not convenient, you may mail the completed reimbursement form and all required documents to Reimbursement Department, PO Box 33170, Detroit, MI 48232-5170. The completed form and required documents must be presented to your dealer or received by the Reimbursement Department by October 31, 2017, unless state law specifies a longer reimbursement period.

# Product Safety Recall

## 16007 Frontal Airbag and Pretensioner Non Deploy



**Do you have questions?**

If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Buick	1-866-608-8080	1-800-832-8425
Cadillac	1-866-982-2339	1-800-833-2622
Chevrolet	1-800-630-2438	1-800-833-2438
GMC	1-866-996-9463	1-800-462-8583
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to <http://www.safercar.gov>. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 16V651.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Jeffrey M. Boyer  
Vice President  
Global Vehicle Safety

Enclosure  
GM Recall 16007