

April 23, 2014

Ms. Nancy Lewis  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
Recall Management Division (NVS-215)  
1200 New Jersey Avenue, SE – Room W45-306  
Washington, DC 20590

Dear Ms. Lewis:

This letter supersedes General Motors' letter of April 9, 2014, and is submitted pursuant to the requirements of 49 CFR 573.6 as it applies to a determination by General Motors to conduct a safety related recall of all 2005-2010 model year (MY) Chevrolet Cobalt, 2006-2011 MY Chevrolet HHR, 2007-2010 MY Pontiac G5, 2006-2010 MY Pontiac Solstice, 2003-2007 MY Saturn Ion, and 2007-2010 MY Saturn Sky vehicles. Specifically, the information submitted pursuant to 49 CFR 573.6(c)(6)(7), 573.6(c)(8) and 573.6(c)(10) below supersedes information included in General Motors' letter of April 9, 2014.

573.6(c)(1): General Motors Company; Chevrolet, Pontiac and Saturn Brands.

573.6(c)(2),(3),(4): This information is shown on Attachment A.

573.6(c)(5): General Motors has decided that a defect which relates to motor vehicle safety exists in all 2005-2010 model year (MY) Chevrolet Cobalt, 2006-2011 MY Chevrolet HHR, 2007-2010 MY Pontiac G5, 2006-2010 MY Pontiac Solstice, 2003-2007 MY Saturn Ion, and 2007-2010 MY Saturn Sky vehicles. Some of these vehicles may have a condition in which the ignition key may be removed when the ignition is not in the "Off" position. If the ignition key is removed when the ignition is not in the "Off" position, unintended vehicle motion may occur: (a) for an automatic transmission, if the transmission is not in "Park"; or (b) for a manual transmission, if the parking brake is not engaged and the transmission is not in reverse gear. This could result in a vehicle crash and occupant or pedestrian injuries.

General Motors has also determined that all 2005 and some 2006 MY Chevrolet Cobalt vehicles and all 2003-2004 MY Saturn Ion vehicles may fail to conform to FMVSS 114, *Theft Prevention and Rollaway Prevention*, as a result of this condition.

Until the recall repairs have been performed, it is very important before exiting the vehicle for customers to make sure the vehicle is in "Park," or in the case of a manual transmission, to put the transmission into reverse gear and set the parking brake.

573.6(c)(6)(7): As permitted by the provisions of 49 CFR 573.6(b), and pursuant to the requirements of 49 CFR 573.6(c)(6) and (7), General Motors now submits the attached



chronology of principal events that were the basis for the determination that the defect related to motor vehicle safety and information considered in determining the existence of the potential non-compliance with FMVSS 114.

573.6(c)(8): For vehicles that were built with the defective ignition cylinder and have not previously had the ignition cylinder replaced with the redesigned part, dealers will replace the ignition cylinder and cut and if necessary re-learn two ignition/door keys for each vehicle.

For vehicles that were built with the redesigned ignition cylinder or had the ignition cylinder replaced with the redesigned part, dealers will cut and if necessary re-learn two ignition/door keys for each vehicle.

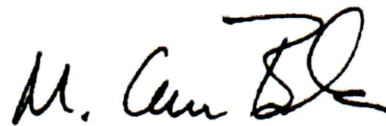
General Motors sent the dealer bulletin to dealers on April 11, 2014, and mailed owner letters on April 18, 2014, through April 21, 2014.

Pursuant to 577.11, GM will provide reimbursement to owners according to the plan submitted on May 23, 2013.

573.6(c)(10): General Motors provided copies of the dealer bulletins to NHTSA on April 14, 2014, and owner letters on April 22, 2014.

573.6(c)(11): General Motors' assigned recall bulletin number is 14113 for ignition lock cylinder and key replacements, and 14133 for key only replacements.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Carmen Benavides". The signature is stylized with a large, looped "M" and a cursive "Benavides".

M. Carmen Benavides, Director  
Field Product Investigations & Evaluations

14113 / 14133  
Attachments



ATTACHMENT A - 573.6(c)(2).(3).(4)

VEHICLES POTENTIALLY AFFECTED BY MAKE, MODEL, AND MODEL YEAR  
PLUS INCLUSIVE DATES OF MANUFACTURE

<u>MAKE</u>	<u>MODEL SERIES</u>	<u>MODEL YEAR</u>	<u>NUMBER INVOLVED</u>	<u>INCLUSIVE MANUFACTURING DATES</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
				<u>(FROM)</u>	<u>(TO)</u>		
Chevrolet	A	2005	140,988	08/03/2004	06/17/2005	Cobalt	*
Chevrolet	A	2006	229,580	04/05/2005	06/09/2006	Cobalt	"
Chevrolet	A	2007	215,678	04/20/2006	08/16/2007	Cobalt	"
Chevrolet	A	2008	176,471	05/29/2007	06/26/2008	Cobalt	"
Chevrolet	A	2009	141,592	04/15/2008	08/11/2009	Cobalt	"
Chevrolet	A	2010	116,275	04/16/2009	06/23/2010	Cobalt	"
Chevrolet	A	2006	113,909	04/11/2005	06/22/2006	HHR	"
Chevrolet	A	2007	99,710	05/15/2006	06/23/2007	HHR	"
Chevrolet	A	2008	99,227	05/01/2007	06/26/2008	HHR	"
Chevrolet	A	2009	80,782	04/08/2008	06/18/2009	HHR	"
Chevrolet	A	2010	64,733	04/20/2009	06/15/2010	HHR	"
Chevrolet	A	2011	68,455	04/22/2010	05/27/2011	HHR	"
Pontiac	A	2007	32,922	04/20/2006	08/06/2007	G5	"
Pontiac	A	2008	20,206	05/30/2007	06/23/2008	G5	"
Pontiac	A	2009	20,662	05/22/2008	08/10/2009	G5	"
Pontiac	A	2010	3	04/16/2009	04/17/2009	G5	"
Pontiac	M	2006	18,771	03/16/2005	06/23/2006	Solstice	"
Pontiac	M	2007	21,311	06/05/2006	06/15/2007	Solstice	"
Pontiac	M	2008	14,088	04/24/2007	06/19/2008	Solstice	"
Pontiac	M	2009	4,207	04/17/2008	07/28/2009	Solstice	"
Pontiac	M	2010	19	04/21/2009	05/28/2009	Solstice	"
Saturn	A	2003	96,324	06/01/2002	07/24/2003	Ion	"
Saturn	A	2004	121,108	04/29/2003	08/07/2004	Ion	"
Saturn	A	2005	71,029	04/27/2004	06/06/2005	Ion	"
Saturn	A	2006	96,227	04/13/2005	05/05/2006	Ion	"
Saturn	A	2007	94,122	04/05/2006	03/28/2007	Ion	"
Saturn	M	2007	15,547	12/06/2005	06/14/2007	Sky	"
Saturn	M	2008	12,982	04/24/2007	06/19/2008	Sky	"
Saturn	M	2009	4,078	04/17/2008	05/19/2009	Sky	"
Saturn	M	2010	8	04/23/2009	05/26/2009	Sky	"
GM Total: 2,191,014							

\* All involved vehicles will be corrected as necessary.

573.6(c)(2)(iv): U-Shin  
40000 Grand River Ave  
Suite 105  
Novi, MI 48375  
248-449-3155

The involved parts, keys and ignition lock cylinders, are manufactured in U.S.

Strattec Security Corporation  
Corporate Headquarters  
3333 West Good Hope Rd.  
Milwaukee, Wisconsin 53209  
414-241-3333(phone)  
414-247-3329(fax)  
info@strattec.com

The involved parts, keys and ignition lock cylinders, are manufactured partially in the U.S. and Mexico.

14113/14133

CHRONOLOGY

On February 7, 2014, General Motors (“GM”) notified the National Highway Transportation Safety Administration (“NHTSA”) of its decision to recall 2005-2007 model year Chevrolet Cobalt and 2007 model year Pontiac G5 vehicles. By letter dated February 24, 2014, GM submitted to NHTSA a chronology of principal events that were the basis for the determination that the defect related to motor vehicle safety, with respect to the recall of the Cobalt and G5 vehicles (“the First Recall”).

In making this recall determination, GM’s Executive Field Action Decision Committee (“EFADC”) was asked to consider a proposed recall only of the Cobalt and G5 vehicles. The submissions to the EFADC did not propose a recall of the Ion, HHR, Solstice, and Sky vehicles. Following GM’s announcement of the First Recall on February 7, 2014, the decision was made to conduct a more in-depth analysis of information related to the vehicles that were listed on Service Bulletins 05-02-35-007 and 05-02-35-007A, but were not included in the February 7, 2014 recall submission to NHTSA.

On February 25, 2014, GM notified NHTSA of its decision to recall all of the other vehicles listed in the aforementioned Service Bulletins—specifically, 2003-2007 model year Saturn Ion, 2006-2007 model year Chevrolet HHR and Pontiac Solstice, and 2007 model year Saturn Sky vehicles. By letter dated March 11, 2014, GM submitted to NHTSA a chronology of principal events that were the basis for the determination that the defect related to motor vehicle safety, with respect to the recall of the Ion, HHR, Solstice and Sky vehicles (“the Second Recall”). Because these vehicles were equipped with the same ignition switch installed in the 2005-2007 model year Chevrolet Cobalt and 2007 model year Pontiac G5 vehicles, the chronology submitted on February 24, 2014, with respect to the First Recall is relevant to GM’s decision to issue the Second Recall.

On March 28, 2014, GM notified NHTSA of its decision to recall later model year vehicles within the scope of the First and Second Recalls, specifically 2008-2010 model year Chevrolet Cobalt, 2008-2011 model year Chevrolet HHR, 2008-2010 model year Pontiac Solstice, 2008-2010 model year Pontiac G5, and 2008-2010 model year Saturn Sky vehicles. By letter dated April 11, 2014, GM submitted to NHTSA a chronology of principal events that were the basis for the determination that the defect related to motor vehicle safety, with respect to the recall of the later model year vehicles (“the Third Recall”).

By letter dated April 9, 2014, GM notified NHTSA of its decision to recall the vehicles within the scope of the First, Second, and Third Recalls because GM identified an additional defect that relates to motor vehicle safety, and also determined that 2005 and some 2006 model year Chevrolet Cobalt vehicles and 2003-2004 model year Saturn Ion vehicles may fail to conform to FMVSS 114, *Theft Prevention and Rollaway Prevention*. In addition to the events set forth in the chronologies submitted to NHTSA regarding the First, Second, and Third Recalls, the following describes the principal events that were the basis for the determination that the additional defect related to motor



vehicle safety and information considered in determining the existence of the potential non-compliance with FMVSS 114. GM's review of data and information relating to the recalled vehicles continues.

\* \* \*

In or about late February or March 2014, certain GM personnel participating in the implementation of the First and Second Recalls who had access to example parts related to the recalls observed that in certain instances, keys could be removed from ignition cylinders even if an ignition was not in the "Off" position. In addition, in connection with the First and Second Recalls, GM had empowered dealerships to provide courtesy vehicles to customers who were concerned about operating any vehicle covered by those recalls. By March 2014, certain customers had taken their vehicles covered by the First or Second Recalls to dealerships to receive a courtesy vehicle, and GM personnel learned from dealerships that some of those vehicles may also have ignition cylinder issues.

In late March 2014, a GM engineer visited two GM dealerships located in Clinton Township, Michigan and Center Line, Michigan, where customers had taken vehicles covered by the First or Second Recalls to receive a courtesy vehicle. The engineer observed 81 vehicles within the following model year, make, and model ranges: 2005-2007 model year Chevrolet Cobalt; 2007 model year Pontiac Pursuit; 2007 model year Pontiac G5; 2003-2007 model year Saturn Ion; and 2006-2007 model year Chevrolet HHR vehicles. Of the vehicles he observed, the engineer recorded on a spreadsheet 13 instances of complete "Key Pullout[s]" when the ignition was not in the "Off" position.

On or about March 21, 2014, a Field Performance Assessment Engineer ("FPAE") was assigned to the Field Performance Evaluation ("FPE") process that was initiated to investigate potential instances in which ignition keys could be removed from vehicles covered by the First and Second Recalls when the ignition was not in the "Off" position ("key pullout issues"). On March 26 and 28, 2014, information gathered by the FPAE and other GM personnel involved in the FPE process was presented to the EFADC. The EFADC requested additional information regarding the number and impact of potential instances of key pullout issues. FPE personnel continued to search GM records relating to customer and dealer reports to GM call centers, warranty repair data, legal claims, and NHTSA Vehicle Owner's Questionnaire ("VOQ") information to identify instances of potential key pullout issues. That search culminated in separate presentations on April 3, 2014 to the Field Product Evaluation Recommendation Committee and the EFADC.

The PowerPoint materials presented to the EFADC on April 3, 2014 noted that the records search conducted as of that date revealed several hundred instances of potential key pullout issues in vehicles covered by the First, Second, and Third Recalls. The PowerPoint specifically listed 139 instances identified from records relating to customer and dealer reports to GM call centers, 479 instances identified from warranty repair data, 1 legal claim, and 6 instances identified from NHTSA VOQ information. However, these numbers could be over-inclusive, as certain instances may be reflected in multiple categories of records.



In addition, FPE personnel researched whether key pullout issues could be associated with unintended vehicle motion ("roll-away instances"), and identified multiple roll-away instances from records relating to customer and dealer reports to GM call centers and legal claims information. The PowerPoint specifically identified 16 roll-away instances. Of the 16 roll-away instances identified in the PowerPoint, 15 were listed as "inconclusive" with respect to whether the roll-away was definitively associated with key pullout issues, and one roll-away instance was described as being associated with a roll-away in which a vehicle operator "removed key while not in park." This one roll-away instance involved a 2006 model year Chevrolet HHR vehicle.

As to the potential cause of the key pullout issues, the PowerPoint noted that ignition "tumblers and key may have excessive wear" and "[i]gnition cylinder tumblers and keys may be worn." However, the EFADC also considered the possibility that some vehicles may have experienced key pullout issues at the time they were manufactured, based on information that included the following: (a) a majority of instances of key pullouts that had been identified in the recall population were in early-year Saturn Ion and Chevrolet Cobalt vehicles, and in addition, repair order data indicated vehicles within that population had experienced a repair potentially related to key pullout issues as early as 47 days from the date on which the vehicle was put into service; and (b) an engineering inquiry known within GM as a Problem Resolution Tracking System inquiry ("PRTS") related to key pullout issues was initiated in June 2005, which resulted in an engineering work order to modify the ignition cylinder sidebar going forward.

First, a majority of the key pullout instances identified involved 2003-2004 model year Saturn Ion and 2005 model year Chevrolet Cobalt vehicles. The PowerPoint identified 358 instances of key pullouts involving those model year, make, and model vehicles (for the reasons discussed above, that number may be over-inclusive).

In addition, with respect to early-year Saturn Ion and Chevrolet Cobalt vehicles, the April 3, 2014 EFADC PowerPoint materials discussed the number of days that elapsed between the "In Service Date" of those vehicles and the "Repair Date" when warranty data reported to GM indicated the vehicles had experienced a repair potentially related to key pullout issues. The PowerPoint stated that with respect to the 2003 model year Saturn Ion, a vehicle was reported as experiencing a potential key pullout repair as early as 47 days from its "In Service Date;" with respect to the 2004 model year Saturn Ion, a vehicle was reported as experiencing a potential key pullout repair as early as 106 days from its "In Service Date;" with respect to the 2005 model year Chevrolet Cobalt, a vehicle was reported as experiencing a potential key pullout repair as early as 173 days from its "In Service Date;" and with respect to the 2006 model year Chevrolet Cobalt, a vehicle was reported as experiencing a potential key pullout repair as early as 169 days from its "In Service Date." The length of time between the "In Service Date" and the "Repair Date" suggested the possibility that these vehicles may have experienced key pullout issues at the time of manufacture.

Second, the EFADC discussed a PRTS that was initiated in June 2005, numbered N183836, which related to key pullout issues in the Chevrolet Cobalt. The "Incident Description" in PRTS N183836 stated: "Tolerance stack up condition permits key to be



removed from lock cylinder while driving." The "Description of Root Cause Investigation Progress and Verification" stated, "As noted a tolerance stack up exists in between the internal components of the cylinder," and a "Summary" stated, "A tolerance stack up condition exists between components internal to the cylinder which will allow some keys to be removed." The "Solution" identified in PRTS N183836 stated: "A change to the sidebar of the ignition cylinder will occur to eliminate the stack-up conditions that exist in the cylinder."

In response to PRTS N183836, engineering work order number CCTVP was initiated and reflected an order to "[c]hange shape of ignition cylinder sidebar top from flat to crowned." The "Description" in the work order included the following: "Profile and overall height of ignition cylinder sidebar to [be] changed in order to assist in preventing key pullout on certain keycodes. Profile of sidebar to be domed as opposed to flat and overall height to be increased by 0.23mm."

PRTS N183836 reflected that this "solution fix[ed] the problem" going forward. An entry in the PRTS made on March 2, 2007 stated: "There were no incidents of the key coming out of the ignition cylinder in the run position during a review of thirty vehicles . . . ." A "Summary" in the PRTS stated: "Because there were no incidents of the key coming out of the ignition cylinder in the run position during a review of thirty vehicles[,] this PRTS issue should be closed." PRTS N183836 was the only PRTS discussed at the April 3, 2014, EFADC meeting, although it is not the only engineering or field report relating to potential key pullout issues.<sup>1</sup>

This data led the EFADC to conclude that 2003-2004 model year Saturn Ion vehicles and 2005 and some 2006 model year Chevrolet Cobalt vehicles may have failed to conform to FMVSS 114. In addition, the EFADC concluded that a defect related to motor vehicle safety existed, and decided to recall all vehicles covered by the First, Second, and Third Recalls to prevent unintended vehicle motion potentially caused by key pullout issues that could result in a vehicle crash and occupant or pedestrian injuries. For vehicles that were built with a defective ignition cylinder that have not previously had the ignition cylinder replaced with a redesigned part, dealers will replace the ignition cylinder and cut and, if necessary, re-learn two ignition/door keys for each vehicle.

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<sup>1</sup> For example, in or about November 2004, PRTS N171964 was initiated in connection with key pullout issues involving the Chevrolet Cobalt. The "[r]oot [c]ause" was identified in the PRTS as relating to 61 key codes, which were removed from production: "A tolerance stack-up has shown that given a certain number of keycodes/keycuts when combined with a combination of worst case tolerances internal to the cylinder, the sidebar retention can be overcome and the key can be removed from the ignition cylinder while in the run position." The "[s]olution" identified in the PRTS stated, in part: "The supplier has eliminated the use of the 61 key cuts from their process." A later entry in the PRTS noted: "61 key codes were removed from production. All validating tests were successful." Finally, a January 28, 2005 entry stated: "Issue has not re-occure[r]ed in post validation testing or in the field."