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OFFICE OF
DEFECTS INVESTIGATION

04V-060
Update

May 24, 2004

Mr. K. N. Weinstein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5321
Washington, D.C. 20590

Dear Mr. Weinstein:

The following information is an update to our 573.8 report originally submitted to NHTSA on February 6, 2004, involving certain 1997-2004 model year Chevrolet Corvette model vehicles. As discussed at the April 27th quarterly meeting, General Motors has identified an additional electronic column lock (ECL) concern and will change the remedy for manual transmission vehicles to address it (no change is needed in the remedy for automatic transmission vehicles).

During March and April of 2004, GM Engineering and Delphi did a detailed analysis of transient voltage effects on the ECL system controls and a re-evaluation of the dimensional characteristics of new and used ECL assemblies. This analysis indicated that when the control system indicates that the ECL is unlocked, the actual location of the lock pin could vary between a point of travel that just caused the switch to indicate unlock to a point well beyond unlocked. The location of the pin in the unlocked state varies, and in about 0.5 - 1% of engine starts, with a quick crank, it stops near the transition point, which locates it closer to the lock plate. Depending on the location of the lock plate relative to the switch transition point, there could then be contact between the lock plate and pin while driving.

To evaluate ECL dimensional characteristics, especially the lock plate to switch transition point dimension, samples of newly manufactured and used columns and ECLs were measured. This statistical data was used to project the performance of the entire population of ECL assemblies in this dimension. Based on these statistical projections, there may be about 40 steering columns in the 1997-2004 MY Corvette population that could exhibit a condition where the control system indicated unlocked while there was contact between the lock plate and lock pin. This usually results in a noise or ratcheting condition, but might result in a partial or full engagement of the ECL pin.

GM has developed a service procedure to address the concern that the vehicle may be drivable with a locked column under low battery conditions by revising the Powertrain controller software to recognize this condition and to inhibit fuel to the vehicle.

GM is currently developing a service procedure to address the two new conditions that, if present at the same time, could combine to possibly cause the ECL to lock the steering column while driving.

Chevrolet dealers will disable the ECL on automatic transmission vehicles. On manual transmission vehicles, they will reflash the PCM software, perform a dimensional check of the column lock and, if necessary, replace the lock plate. Draft copies of the dealer bulletin with the service procedure, and owner notification will be submitted to NHTSA for review later this month.

Product Investigations

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GM began this recall for certain automatic transmission vehicles in April 2004 and GM plans to notify additional owners in June 2004. Please contact me if you have any further questions regarding this safety recall.

Sincerely,



Gay P. Kent
Director
Product Investigations

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Attachments

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 (FROM) (TO)</u>		<u>DESCRIPTIVE INFO. TO PROPERLY IDENT. VEH.</u>	<u>EST. NO. W/CONDITION</u>
Chevrolet	Y Car	1997	9,006	09/96	07/97	Corvette	* Unknown
Chevrolet	Y Car	1998	24,431	03/97	06/98	Corvette	"
Chevrolet	Y Car	1999	16,121	03/98	06/99	Corvette	"
Chevrolet	Y Car	2000	23,117	03/99	06/00	Corvette	"
Chevrolet	Y Car	2001	14,953	03/00	06/01	Corvette	"
Chevrolet	Y Car	2002	15,822	03/01	06/02	Corvette	"
Chevrolet	Y Car	2003	16,123	02/02	06/03	Corvette	"
Chevrolet	Y Car	2004	<u>6,955</u>	02/03	01/04	Corvette	"
Grand Total:			126,528				

* All involved vehicles will be corrected.