



GENERAL MOTORS NORTH AMERICA
Structure & Safety Integration

April 16, 2004

04V-190
(3 pages)

Mr. K. N. Weinstein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5321
Washington, D.C. 20580

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Dear Mr. Weinstein:

The following information is submitted pursuant to the requirements of 49 CFR 573.5 as it applies to a determination by General Motors of a safety defect involving certain 2004 Chevrolet Malibu model vehicles.

573.5(c)(1): Chevrolet Division of General Motors Corporation

573.5(c)(2)(3)(4): This information is shown on the attached sheet.

573.5(c)(5): General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2004 Chevrolet Malibu model vehicles. Some of these vehicles have an Electronic Control Unit (ECU) that may calculate a higher than actual vehicle speed because of an erratic rear-wheel speed sensor signal, and cause ABS activation where it is not needed or needed ABS activation to be extended during braking as the vehicle speed drops to about 5 km/h (3 mph). A four-wheel ABS activation could occur for a maximum of 1.25 seconds on a level surface or for up to 2.5 seconds if the vehicle is on a grade, resulting in increased stopping distances of up to 3.4m (11.4 ft).

573.5(c)(6): During a Dynamic Vehicle Test at the GM Fairfax Assembly Plant on February 24, 2004, an extended stopping distance issue was observed on a 2004 Chevrolet Malibu. GM began an investigation after a second reported incident occurred on February 27, 2004.

During three weeks of testing in March 2004, the investigation by GM and Delphi determined that the condition is caused by an incorrect learning routine within a rear wheel speed sensor caused by a performance issue in the wheel-speed sensor's integrated circuit, the size of the air gap between the sensor and the tone ring, and the motion of the tone ring during execution of the learning routine. The effect of the condition on the performance of the vehicle, and a remedy for the effect, was determined using computer simulations, bench testing, and another week of vehicle testing. This testing verified that, by modifying the ECU algorithm, ABS activation where it is not needed would be eliminated.

The issue was presented to the FPE Director on April 1, 2004. The FPE Director requested preparation of an FPE report for review with Senior Management. The decision was made on April 15, 2004 to conduct a safety recall.

573.5(c)(8): General Motors is currently developing a service procedure to inspect all involved vehicles and repair as necessary. This information will be included in the service procedure of the draft dealer bulletin that will be submitted to NHTSA when available.

Pursuant to 577.11(e), GM does not believe notification about reimbursement is required for this recall. Involved vehicles are current model and are covered by the new car warranty.

Product Investigations

Mail Code: 480-106-904 • 30800 Mound Road • Warren, MI 48090-9085
Phone: (586) 986-8029 • Fax: (586) 947-2818
2141-0800 673 letter.doc



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573.8(c)(9): GM will forward draft and final copies of the dealer bulletin and owner notification and mail dates when available.

Sincerely,



Gay P. Kent
Director

Product Investigations

2141 - 04030
Attachment

**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	Z Car	2004	63,000 (Approx)	00/00	00/00	Malibu	100%