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(5 pages) Amended

ADAM KOPSTEIN

Manager, Product Safety & Compliance

September 4, 2013

Ms. Nancy Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue SE, Room W45-306
Washington, DC 20590

Subject: Defect Information Report

Dear Ms. Lewis,

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Volvo Cars of North America, LLC (Volvo) submits the attached supplemental information to our August 20, 2013 defect information report for Volvo Recall R39413 Central Electronic Module (CEM) Software Upgrade.

If you have any questions related to this matter, please feel free to contact me at my above mentioned phone number, or Larry Mihok of my staff at 201-768-7300, extension 7336.

Sincerely yours,

Adam Kopstein
Manager, Product Safety & Compliance Office
VOLVO CARS OF NORTH AMERICA, LLC.

Volvo Cars U.S.
Customer Service

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49 CFR PART 573 – DEFECT INFORMATION REPORT

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Volvo Cars of North America, LLC (Volvo) submits the following information concerning a **safety-non - compliance** recall program that Volvo Car Corporation (Volvo Cars) is voluntarily initiating:

573.6 (c) 1: Manufacturers Name

Vehicle Manufacturer:	Designated Agent:
Volvo Car Corporation	Volvo Cars of North America
Gothenburg, Sweden	Rockleigh, N.J. 07647

573.6 (c) 2: Identification of Vehicles Involved

The vehicles involved in this recall are certain year 2014 models S60/XC60/S80/XC70 vehicles. The inclusive dates of manufacture and VIN ranges are listed in the chart below; **please note that the VIN ranges and production dates may reflect global production and not only vehicles available for sale in the United States or its Territories.** To verify if a vehicle is included within this population, please contact Volvo Customer Care at 1-800-458-1552.

MODEL	MODEL YEAR	PRODUCTION DATES	CHASSIS RANGE
S60	2014	04/29/13-07/19/13	0270126 - 0283306
XC60	2014	04/30/13-07/19/13	0500138 - 0524612
S80	2014	04/29/13-07/12/13	0177037 - 0178750
XC70	2014	05/08/13-07/12/13	0175039 - 0179915

573.6 (c) 2: (iv) Manufacture's name of Affected Component and Country of Origin

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573.6 (c) 3: Total number of Vehicles Potentially Containing the Defect

A total of 7,767 S60 XC60 S80 XC70 vehicles in the U.S. and its Territories are potentially affected.



573.6 (c) 4: Percentage of affected vehicles that contain the defect:

100%

573.6 (c) 5: Description of the deviation

Due to a software error on certain Model Year 2014 S60, S80, XC60 and XC70 vehicles equipped with Keyless ignition, the Central Electronic Module (CEM) may not perform as intended. If the deviation occurs, when restarting the engine after the vehicle has been in sleep mode, the amber colored warning light in the Driver Information Module (DIM) will illuminate and the following message displayed e.g. "Alarm system service required". There may also be other messages in the DIM depending on individual vehicle equipment. In addition to this, the front windshield wipers will be running continuously when the ignition is on.

In addition to the above, the customer may experience one or all of the following symptoms:

- The turn signals do not work.
- The headlight switch does not work. Low beam is permanently on when ignition is on.
- High beam does not work.

-Windshield washer system does not work.

573.6 (c) 6: Chronology of Events

Volvo Car Corporation centrally received the following technical reports from the U.S. market:

08/08/13: Volvo receives a single technical report where the customer describes a situation concerning "wipers in limp home mode". No other failure mode was reported. The report contained 1 vehicle therefore treated as a single case. The fault source was believed to be CEM related by Volvo Cars engineering.

08/12/13: Internal analysis of the CEM at Volvo Cars in Sweden started.

08/13/13: 1 vehicle added to the report, *the customer states windshield wiper problem and no turn signal. The engineers at Volvo US contacted their counter parts at Volvo Cars in Sweden for support to investigate the matter with windshield wipers and no turn signal. So far only two vehicles with these customer symptoms and no defect trend were established.

08/14/13 thru 08/16/13: Cause and effect analysis of hardware and software updates introduced for MY14 is performed by Volvo Cars and Delphi.

08/16/13: Based on the initial analysis it is concluded the issues reported are related to the CEM. Actions defined to establish the root cause, probability of occurrence and remedy.

08/17/13 thru 08/19/13: Continued analysis and testing. The completed risk assessment concludes that a potential non-compliance issue exists and the issue is to be addressed in Volvo Cars Critical Concern Management Team.



Additional vehicles were added to the same report at the following dates relating to the condition.

08/15/13, 1 vehicle with the same problem description as above*

08/16/13, 2 vehicles with the same problem description as above*.

08/19/13, 2 vehicles with the same problem description as above.*

Volvo Cars centrally has not received any warranty claims for the condition from the U.S. market.

Volvo Cars centrally has not received any reports alleging injuries, fatalities, or crashes related to this condition.

08/20/13:

- **Critical Concern Management Team (CCMT)** Matter considered critical non-compliance by CCMT.
Decision taken to block vehicles at the factories and ports of entry.
- **Port Action Mail** Instruction was sent out to ports of entry to update software (SW) for the Central Electronic Module (CEM)
- **Immediate dealer delivery stop mail** issued from Volvo Cars.
- **Senior Vice President Quality & Customer Service (SVP Q&CS)** Decision to submit the part 573 and notify dealers.
- **Volvo Cars of North America sent a 573 Defect Information Report to NHTSA and sends all dealers a letter** instructing them to perform a CEM software upgrade on all vehicles prior to sale.

573.6(c) (7): Information Used in Determination of a Noncompliance
Failure to comply with the following requirements:

49 CFR 571.108 - Standard No. 108; Lamps, reflective devices, and associated equipment.

"The turn signals do not work"

S7 Signal lamp requirements.

"High beam does not work"
High beam:

S9.4.1 Semi-automatic headlamp beam switching device.

49 CFR 571.104 - Standard No. 104; Windshield wiping and washing systems.

"Front windshield wipers will be running continuously when the ignition is on"

S4.1 Windshield wiping system.

S4.1.1 Frequency.

"Windshield washer system does not work"

S4.2 Windshield washing system.

S4.2.1



Activities and testing.

The following steps and testing were performed to determine the conditions above described:

08/17/13: Test plan established. Test of Central Electronic Module (CEM) and in-car testing started.

08/19/13: In-car testing completed.

08/20/13: Test of CEM SW completed.

573.6 (c) 8 (i): Program for Remedy of Defect

The vehicles concerned will have a Central Electronic Module (CEM) software upgrade performed.

All involved vehicles will be subject to the recall. Volvo will mail to vehicle owners, via USPS First Class mail, a letter requesting them to take their vehicles to an authorized Volvo retailer for repair at no charge.

573.6 (c) 8 (ii): Estimated Dates of Notifications to Dealers and Owners

Preliminary information sent to dealers on August 20 with repair information. The estimated date to complete sending owner notification letters is September 19, 2013.

573.6 (c) 10: Copies of Notices, Bulletins, etc.

The complete Retailer Information package will be sent to RMD on 09/10/13 when it is estimated to be sent to dealers. We are currently working on a draft copy of the owner notification letter and it will be sent to the agency shortly.

573.6 (c) 11: The Manufacturer's Campaign Number

Volvo Cars has assigned recall campaign number R39413 to this action.