



Volvo Cars of North America, LLC

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Phone: 201-768-7300  
[www.volvocars.us](http://www.volvocars.us)

Adam Kopstein, Manager  
Product Safety & Compliance

August 5, 2009

Daniel Smith, Associate Administrator Enforcement  
National Highway Traffic Safety Administration (NSA-01)  
1200 New Jersey Avenue, SE,  
West Building, Fourth Floor Washington, DC 20590.

RECEIVED  
 2009 AUG 11 P 12:37  
 OFFICE OF DEFECTS  
 INVESTIGATION

Re: DEFECT INFORMATION REPORT

Dear Mr. Smith,

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 recall program that it is voluntarily initiating.

- |   |  |
|---|--|
| 1. Vehicle Manufacturer.<br>Volvo Car Corporation<br>Gothenburg, Sweden | Designated Agent<br>Volvo Cars of North America<br>Rockleigh, N.J. 07647 |
|---|--|

2. Identification of Vehicles involved  
The vehicles involved in this Recall are certain model year 2008 and 2009 S80, V70 and XC70 vehicles. The assembly plants and inclusive dates of manufacture are listed in the chart below; please note that the vehicle chassis numbers reflect global production and not only vehicles available for sale in the United States or its territories.

MODEL	MDL YRS	PRODUCTION DATES	CHASSIS NUMBERS
S80	08-09	2008-02-06 – 2008-11-03	0072999 - 0099920
V70	08-09	2008-02-06 – 2008-11-03	0038190 - 0092273
XC70	08-09	2008-02-06 – 2008-11-03	0028521 - 0060272

3. Number of Vehicles Potentially Affected.  
**The number of vehicles potentially affected by this recall in the U.S. is 17,614**
4. Estimated percentage of Vehicles with the Defect.  
Unknown, this recall remedy will be implemented on 100% of the recalled vehicles.
5. Description of the Defect.  
Volvo has found that under certain conditions the engine cooling fan may stop working due to a software programming error in the Fan Control Module (FCM). The fault mode can be entered / noted if the input demand from Engine Control Module is stopped and then restarted. This can happen during shutdown of the car (when the customer removes ignition key). Once the customer has turned the ignition key to the off position, the ECM remains active for up to 2 minutes.  
In some cases, when the engine is turned off and restarted, or ignition key removed and inserted within 2 minutes and 13 seconds, there is a risk that the fan control module can enter fault mode.  
Depending on driving conditions and engine load, this fault mode will lead to reduced air conditioning performance and an inoperative cooling fan with the possibility of an overheated engine.

The driver will be systematically informed by warning light illumination followed by a corresponding text message which appears in the information display of the instrument panel. However, depending on the driving conditions and in a worse case scenario, the driver may not have sufficient time to react to the warning lights or the text message in the instrument panel.

The corrective action will be to upgrade the Fan Control Module (FCM) software by replacing the Fan Control Module.

**Root cause:** A software programming error in the Fan Control Module (FCM) may prevent the engine cooling fan from functioning.

**Symptom/driver experience:**

The engine cooling fan may not operate. This situation may result in loss of cooling system function and engine break down. The driver will be systematically informed by warning light illumination followed by a corresponding text message which appears in the instrument panel. However, depending on the driving conditions and in a worse case scenario, the driver may not have sufficient time to react to the warning lights or the text message in the instrument panel.

**The supplier contact information:**

Johnson Electric: Mr. Mauro Salute; [mauro.salute@johnsonelectric.com](mailto:mauro.salute@johnsonelectric.com); +39 0141 44 44 25

6. Chronology of Events.

- May 02, 2008
  - i. Receipt of first warranty claim in the U.S. A total of 287 U.S. warranty claims from 05/02/08 – 06/04/09.
  - ii. Receipt of first Tech Hotline case.
- May 19, 2008
  - i. Receipt of first field technical report in the U.S. A total of 69 field technical reports and Tech Hotline cases from 05/02/08 – 06/04/09.
- June 10, 2008
  - i. Volvo Car Corporation (VCC) in Sweden receives the first "Field Report". This 'Field Report' was for a non – U.S. vehicle.
- October 20, 2008
  - i. New material was implemented in factories. A software programming error was identified in the Fan Control Module (FCM). Due to conflicting field reports and difficulty in identifying correct sequence necessary to reproduce the problem, factory changes took longer than expected. This was further compounded by the fact that the FCM software upgrade needed to be done directly at the sub-supplier.
- December 01, 2008
  - i. This issue reached a level where it was identified as a potential safety defect. However, the actual number of cases and the symptoms stated by customers cast an incomplete picture. This issue was brought into the field service actions process at VCC.
- March 02, 2009
  - i. Preparations begin at VCC for a field action on this issue. Work begins with the supplier to ensure adequate supply of fan control modules to support a field action.

Chronology of Events (continued)

- April 30, 2009
  - i. First customer call to the Volvo Customer Care department in the U.S. on this issue. This is the only customer call logged for these vehicles for this issue.
- June 05, 2009
  - i. Field Service Action released by VCC worldwide.
- June 08, 2009
  - i. Notification of a voluntary recall sent to NHTSA and recall information released to U.S. Volvo retailers.
- July 13, 2009
  - i. Customer notification mailing completed.

7. Program for Remedy of Defect.

All involved vehicles will be subject to the recall. Vehicle owners received a letter via first class mail. The letter requested that the owner of the vehicle take their vehicle to an authorized Volvo retailer for remedy at no charge. For vehicles remaining in retailer or Volvo inventory, the recall will be performed prior to sale. The remedy is to replace the Fan Control Module.

8. Copies of Notices, Bulletins, etc.

Volvo has issued a notification to all U.S. and Canadian retailers informing them of this recall. In this notification, retailers were instructed to perform the recall on vehicles prior to sale.

9. Proposed Owner Notification Letter.

A draft copy of Volvo's Owner notification letter was created and submitted to the agency. A sample letter of the final version of the customer notification letter was also sent to the agency.

10. The Manufacturer's Campaign Number.

Volvo has assigned Volvo Recall Campaign Number R214 to this Recall Campaign.

If you have any questions regarding this report please contact me at (201) 768-7300 ext. 7908, email [akopstei@volvocars.com](mailto:akopstei@volvocars.com)

Sincerely yours,

VOLVO CARS OF NORTH AMERICA, LLC.  
Customer Service



Adam Kopstein  
Manager, Product Safety & Compliance