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*By Recall Management Division at 8:12 am, May 07, 2013*

May 7, 2013

Ms. Nancy Lummen Lewis  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
Recall Management Division (NVS-215)  
Room: W48-302  
1200 New Jersey Ave. SE  
Washington, DC 20590

Dear Ms. Lewis:

Attached is Chrysler Group LLC's ("Chrysler") Defect Information Report, complying with the requirements of 49 CFR Part 573, Defect and Noncompliance Reports, which contains details of a potential safety related defect in vehicles.

Chrysler Group will conduct a voluntary safety recall to reflash the final drive controller on all affected vehicles with updated control software.

Sincerely,

A handwritten signature in blue ink that reads "Kristin Kolodge".

Kristin J. Kolodge

Enclosure: Defect Information Report for Chrysler Group LLC. Recall N23

cc: Frank Borris, NHTSA

# DEFECT INFORMATION REPORT FOR CHRYSLER GROUP LLC

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**Submission Date:** May 7, 2013

## **573.6(c)(1): Manufacturer's Name, Brand Name**

Chrysler Group LLC, Jeep

## **573.6(c)(2): Identification of Affected Vehicles**

Make(s)	Model(s)	Model Year(s)	Inclusive Dates of Manufacture
Jeep	Grand Cherokee	2005 to 2010	February 11, 2004 to March 9, 2010
Jeep	Commander	2006 to 2010	January 31, 2005 to March 10, 2010

## **573.6(c)(2)(iv): Component manufacturer name, address, telephone number, and country of origin:**

Tier 1:  
Magna Powertrain  
1870 Technology Dr,  
Troy, MI 48083  
USA  
(248) 680-4900

Subcomponent supplier:  
Preh de Mexico S.A. de C.V.GmbH  
Crio 814  
Guadalupe, Nuevo Leon  
Mexico  
52 81 5102 5700

## **573.6(c)(3): Potentially Affected Vehicle Population**

295,345 (estimated)

## **573.6(c)(4): Percentage of Affected Vehicles**

Unknown

## **573.6(c)(5): Description of Defect or Noncompliance**

Some vehicles may experience a transfer case actuator encoder electrical failure that results in unintentional transfer case shifting into or through the neutral position, which may result in vehicle rollaway and could result in a crash.

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### **573.6(c)(6): Chronology of Principal Events Leading to Determination of a Safety Defect**

- On January 18, 2012, Chrysler opened an investigation in response to a customer complaining that their 2007 MY Grand Cherokee shifted to neutral and rolled upon a remote start.
- The 245 transfer case is an automatic 4WD system that shifts into and out of 4WD modes and ranges automatically or based on customer inputs. The shifting is accomplished with an electric actuator (composed of a motor, gearing, and electric position encoder) and is commanded by the final drive control module.
- On January 30, 2012 engineering requested additional actuators be collected through the warranty system. Engineering engaged the transfer case supplier to analyze the actuators returned under warranty.
- The warranty analysis was completed on October 11, 2012 and found cracks in the actuator circuit board traces that resulted in a biased (offset) position signal which could be incorrectly interpreted by the final drive controller.
- During the initial vehicle startup sequence, the controller can automatically command a transfer case shift, without input from the driver (attempting to correct its position based on a biased signal).
- On September 25, 2012 Chrysler obtained the software source code from the controller supplier and began to review the code for possible changes.
- On December 3, 2012, Chrysler completed software modifications to prevent unintended shifting due to a biased encoder signal.
- On March 19, 2013 Chrysler completed validation of the new software.
- On April 30, 2013, Chrysler Group LLC decided to conduct a voluntary safety recall to reflash the final drive controller on all affected vehicles.

### **573.6(c)(7): Information Used in Determination of a Noncompliance**

N/A

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### **573.6(c)(8): Description of Remedy**

Chrysler will conduct a voluntary safety recall to reflash the final drive controller with new software.

Chrysler has a longstanding policy and practice of reimbursing owners who have incurred the cost of repairing a problem that subsequently becomes the subject of a field action. To ensure consistency, Chrysler, as part of the owner letter, will request that customers send the original receipt and/or other adequate proof of payment to the company for confirmation of the expense.

### **573.6(c)(10): Dealer and Owner Communications**

Chrysler plans to begin notification of dealers and owners in June, 2013. Chrysler will provide the dealer and owner letters when available.

### **573.6(c)(11): Manufacturer's Campaign Number**

Chrysler has assigned recall number N23 to this action.