

**RECEIVED**

By Recall Management Division at 6:50 am, Mar 01, 2013

**NISSAN NORTH AMERICA, INC.**

Corporate Headquarters  
One Nissan Way  
Franklin, TN 37068

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Franklin, TN 37068-5001

Telephone: 615.725.1000

February 28, 2013

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

Dear Madam:

We are transmitting the enclosed Defect Information Report in accordance with 49 CFR Part 573. A voluntary recall campaign will be initiated and your office provided with the notices. Nissan plans to notify dealers and owners in early April 2013. We will not include information in the Part 577 owner notification concerning reimbursement for the cost of obtaining a pre-notification remedy as these vehicles are under warranty.

Very truly,



Donald Neff  
Manager,  
Technical Compliance

Encl.

## **DEFECT INFORMATION REPORT**

1. Manufacturer:

Nissan North America, Inc., and Nissan Mexicana, S.A. de C.V.

2. Vehicles Potentially Involved:

<b><u>Model</u></b>	<b><u>Dates of Manufacture</u></b>
MY 2013 Nissan Altima	TBD
MY 2013 Nissan LEAF	TBD
MY 2013 Nissan Pathfinder	TBD
MY 2013 Nissan Sentra	TBD
MY 2013 Infiniti JX35	TBD

No other Nissan or Infiniti vehicles are affected because this specific Occupant Detection System (ODS) system is not utilized in any other Nissan or Infiniti vehicles.

The ODS supplier is:

Calsonic Kansei North America, Inc.  
617 Potomac Pl  
Smyrna, TN 37167  
Tel: (615) 459-5525

3. Total Number of Vehicles Potentially Involved:

Total number of vehicles: Approximately TBD.

<b><u>Model</u></b>	<b><u>Total Number of Vehicles</u></b>
MY 2013 Nissan Altima	Approximately TBD
MY 2013 Nissan LEAF	Approximately TBD
MY 2013 Nissan Pathfinder	Approximately TBD
MY 2013 Nissan Sentra	Approximately TBD
MY 2013 Infiniti JX35	Approximately TBD

4. Percentage of Vehicles Estimated to Actually Contain the Defect:

Unknown

5. Description of the Defect:

In some of the affected vehicles, the strain gauge sensors used to determine the weight of the passenger seat occupant for the Occupant Detection System (ODS) may have been manufactured out of specification. More specifically, certain heat treatment anomalies which occurred, that have since been corrected, could cause the load cells within the strain gauge sensors to malfunction. If this malfunction occurs, the ODS system will permanently suppress the deployment of the passenger air bag regardless of occupant weight. The (red) supplemental air bag warning light (SRS Light) will illuminate to alert the vehicle operator and the (amber) front passenger air bag status light will illuminate to alert the front seat passenger.

6. Chronology of Principal Events:

December 2012 - Nissan first noticed an increasing trend of warranty claims regarding the SRS Light and/or the passenger airbag status light for certain MY2013 vehicle models.

December 23, 2012 - Nissan began more active field monitoring and initiated a parts collection program focusing its analysis on common parts. An audit of the ODS sensor supplier (Panasonic, a Calsonic sub-supplier) was conducted to verify manufacturing process change history. It was confirmed that no changes were made at Panasonic which would affect the ODS sensor performance.

January 2013 - Nissan received reports of certain vehicles at the Smyrna, TN plant in which both the SRS Light and the passenger airbag status light were on. Nissan design engineers recorded sensor outputs before shipping the incident parts to Panasonic in Japan for detailed inspection and teardown. Nissan and Panasonic engineers worked together to inspect the ODS sensors, and to conduct detailed teardown and material analysis. Additionally, several component level tests were conducted to attempt to replicate the condition that led to customer warranty claims. Based on this activity, it was found that the strain gauge sensors displayed permanent voltage offset after a load is applied. Upon discovering this, the team focused its study on the strain gauge sensors and the integrated load cells.

Concurrently with these activities, Nissan continued to monitor field data to determine if there was a defect trend and whether the issue was isolated to a certain production period.

January 28, 2013 - Nissan discovered that the strain gauge sensor supplier (Tier 2 to Panasonic) had made changes in its heat treatment process of the load cells. This change in process affected the material characteristics of the load cell, which affected sensor performance.

February 2013 - Nissan and suppliers conducted detailed technical studies to confirm the effect of heat treatment process deviation on sensor performance.

The strain gauge sensor supplier provided Nissan with lot traceability data that confirmed incident sensors by serial number. This traceability activity confirmed that incident sensors corresponded to an increase in customer warranty claims from a timing and VIN standpoint. Nissan is continuing the traceability activity to confirm the affected VIN range for the models listed in Section 2 above.

February 21, 2013 - Based on the foregoing, Nissan determined that a safety-related defect exists and that a recall campaign should be conducted.

7. Description of Corrective Action:

Owners of all potentially affected vehicles will be notified in early April 2013. The ODS sensors will be inspected, and if necessary, replaced with new ODS sensors manufactured to specification at no charge to the owner for parts or labor.

8. Copy of Notices:

Copies of all notices will be provided to NHTSA as they become available.