

#### NISSAN NORTH AMERICA, INC.

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10V-517 (4 Pages)

October 28, 2010

NISSAN

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 Sir:

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 will notify dealers on October 28, 2010 and begin owner notification in early December 2010. We will include a statement in the Part 577 owner notification concerning reimbursement for the cost of obtaining a pre-notification remedy.

Very truly,

ohn Sebbons

John Gibbons Senior Manager, Technical Compliance

Encl.

# **DEFECT INFORMATION REPORT**

## 1. Manufacturer:

Nissan North America, Inc

## 2. <u>Vehicles Potentially Involved:</u>

Certain 2004-2006 Model year vehicles shown in the table below:

Model Year	Model	Manufacturing Date
2004-2006	Armada	February 5, 2004 to May 15, 2006
2004-2006	Titan	August 19, 2003 to May 15, 2006
2004-2006	QX56	December 11, 2003 to May 12, 2006
2005-2006	Frontier	August 5, 2004 to June 15, 2006
2005-2006	Pathfinder	June 23, 2004 to June 16, 2006
2005-2006	Xterra	October 19, 2004 to June 16, 2006

No other Nissan or Infiniti models are affected in the United States because the design of the component subject to this recall (Engine Control Module relay) is different in other Nissan and Infiniti vehicles.

Vehicles manufactured after the dates indicated above are equipped with a different relay design.

The name and address of the relay supplier is:

Yazaki North America Inc. (YNA) North American Headquarters 6801 Haggerty Road Canton, Michigan 48187 Phone: 734-983-1000

3. Total Number of Vehicles Potentially Involved:

Model Year	Model	Number of Vehicles (Approximately)
2004-2006	Armada	107,371
2004-2006	Titan	228,105

2004-2006	QX56	37,072
2005-2006	Frontier	124,860
2005-2006	Pathfinder	148,141
2005-2006	Xterra	101,931

Approximately 747,480 vehicles total.

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

Unknown

## 5. <u>Description of the Defect:</u>

The Intelligent Power Distribution Module (IPDM) assembly contains an Engine Control Module (ECM) relay that has a diode for electrical current noise reduction. On some of the potentially affected vehicles, the ECM relay may allow silicon vapor to form. Over time, the silicon evaporates from the diode molding which causes silicon oxide to develop on the ECM relay contact due to arcing. In certain instances, this oxidation could cause engine performance issues, such as hesitation, rough engine idle, a slow-start or no-start condition, and in some cases, engine stalling at low engine speeds.

## 6. Chronology of Principal Events:

April 2009 through July 2009 – Nissan received several dealer reports of customer complaints of rough idle and long engine cranking. Dealer technicians diagnosed the cause as a faulty IPDM and replaced the unit, which resolved the issue.

August 2009 through December 2009 – Nissan received additional reports of rough idle, no start or extended cranking and hesitation. Nissan initiated a parts collection of incident parts and began an investigation into the root cause of the issue.

January 2010 through March 2010 – Investigation of the collected incident parts determined that silicon oxidation on the ECM relay contacts inside the IPDM caused a voltage drop in the relay which caused the rough idle, no start or extended cranking condition.

During the course of the investigation, it was also determined that ECM relays manufactured after an unrelated design change in 2006 did not

exhibit the same issue.

April 2010 through July 2010 – As a result of the investigation, Nissan and the supplier (Yazaki) conducted vehicle evaluation and testing to reproduce the issue and confirm rough idle, no start and extended cranking conditions. During that phase of the investigation, it was discovered that there was a possibility that the vehicle could stall after start-up under certain low speed conditions. The investigation continued to determine the scope of the incident and the risk to motor vehicle safety.

July 2010 through September 2010 – Nissan continued a parts collection activity and conducted additional review of warranty data and field repair data to determine the frequency of the issue and whether it could result in stalling in the field.

September 2010 through October 2010 – Nissan reviewed and analyzed collected data. During the course of reviewing this data, Nissan became aware of a large number of IPDM service part backorders. It was also noted that in addition to hesitation, rough engine idle, and slow-start, some customers reported vehicle stalling.

October 21, 2010 - 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 to take their vehicle to a Nissan or Infiniti dealer. The ECM relay inside the IPDM assembly will be replaced.

#### 8. <u>Copy of Notices:</u>

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