

NISSAN

NISSAN NORTH AMERICA, INC.

Corporate Headquarters
One Nissan Way
Franklin, TN 37068

Mailing Address: P.O. Box 685001
Franklin, TN 37068-5001

Telephone: 615.725.1000

March 15, 2012



Mr. Stephen W. McHenry
Vehicle Control Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

Re: PE11-038; NVS 213krh

Dear Mr. McHenry:

Enclosed is Nissan's supplemental response to NHTSA Information Request PE11-038, NVS 213krh. This final response supplements our February 16th response and contains additional information requested by the agency.

The attached reply responds by first stating each question, then the response. Please contact us if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "John Gibbons". To the right of the signature, the text "For JJB" is handwritten.

John Gibbons
Senior Manager
Technical Compliance

Enclosures

Response to

PE11-038

INTRODUCTION

In responding to this Information Request ("IR"), information has been obtained from those places within Nissan likely to contain such information in the regular and ordinary course of business. When a particular Request seeks "documents" as defined in the IR, reasonable, good faith searches have also been made of corporate records in those places likely to maintain them in the regular and ordinary course of business. Nissan has searched for and produced records that were created up to and on the date this Information Request was received, December 14, 2011.

The definitions of "documents" and "Nissan", however, are unreasonably broad, vague and ambiguous in the context of the information sought by this IR. For example, "calendars", "appointment books", "financial statements" and "personnel records" would not contain owner complaints, field reports or other information sought by Request 2 pertaining to the alleged defect. Therefore, searches were not made for such "documents", inasmuch as they would not likely contain responsive information. In addition, Nissan has not provided information from persons or entities over which it does not ordinarily exercise control. Nissan understands this IR to seek information on vehicles manufactured for sale in the United States.

Responses are provided after each request, and Attachments are utilized as appropriate. The source of information used as a basis for the data in each Attachment, including the date the data were updated and retrieved, is identified at the beginning of each Attachment, as applicable. If a document itself is the source for the requested information and it is provided, we assume no further source identification is called for. If a document, drawing or component is requested, or if no responsive information is available, we assume no further source identification is called for.

With regard to claims of privilege, Nissan understands that it is acceptable to the Agency for Nissan to identify specific categories of privileged documents rather than any specific document. These specific categories are: 1) communications between outside counsel and Nissan Legal Department employees, other Nissan employees, or other Nissan-represented parties in litigation and claims; 2) communications between Nissan Legal Department employees and other Nissan employees or other Nissan-represented parties in litigation or claims; 3) notes and other work product of outside counsel or of Nissan Legal Department employees concerning communications with Nissan employees or consultants, and the work product of those employees or consultants done for or at the request of outside counsel or Legal Department employees; and 4) other categories to be identified later as necessary. For any privileged documents that are not included in these categories, such documents, if any, will be specifically identified on a separate privilege index at a later time. To the extent that a document is furnished, Nissan is not asserting a privilege claim for that document, although the disclosure of such document does not waive the attorney-client privilege or work-product protection with respect to other documents prepared in connection with the specific litigation or claim or other litigation or claims. In addition, in submitting such documents, we reserve our right to claim the attorney-client privilege and/or work-product protection with respect to analyses that may be prepared subsequently in connection with these and other cases. Also, we understand documents specifically related to the preparation of the responses are not sought.

Nissan believes NHTSA's policy is to protect the privacy of individuals under exemption 6 of the Freedom of Information Act, 5 U.S.C. Section 552(b)(6). We understand that name, address, and other personal information of owners or other individuals, including Nissan personnel, contained in any of the attachments in this response will not be made available to the public. Therefore, Nissan is not requesting confidential treatment for this information pursuant to 49 CFR, Part 512, but we believe any private information concerning individuals should not be made public.

* * * * *

1. State, by model and model year, the number of subject vehicles Nissan has manufactured for sale or lease in the United States and federalized territories. Separately, for each subject vehicle manufactured to date by Nissan, state the following:

- a. Vehicle identification number (VIN);
- b. Model;
- c. Model Year;
- d. Date of manufacture;
- e. Date warranty coverage commenced; and
- f. The State in the United States, or the federalized territory, where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2003, 2007, or a compatible format, entitled "PE 11-038 PRODUCTION DATA."

Table 1. Production Data Summary

MODEL	MY2003	MY2004
M45	6,381	1,695

The information requested in 1.a through 1.f is provided, when known, in a table titled, "PRODUCTION DATA" within the database titled PE11-038 REQUEST DATA.mdb on a DVD enclosed as Attachment A.

2. State, by model, model year, the number of subject vehicles Nissan has manufactured for sale or lease in the United States and federalized territories for which Nissan has sold an extended service plan. For vehicles with more than one extended service plan, list the vehicle separately for each plan. Separately, for each vehicle, state the following:

- a. Vehicle Identification number (VIN);
- b. Model;
- c. Model Year;
- d. Name of extended service plan;

- e. Mileage at which the extended service plan expires; and
 f. Number of months from the warranty start date at which the extended service plan expires.

Provide the table in Microsoft Access 2003, 2007, or a compatible format, entitled "PE 11-038 SERVICE PLAN DATA."

Table 2. Service Plan Summary

Plan Description	2003 M45	2004 M45
Infiniti Elite Extended Protection Plan - Pre-Owned	1,043	193
Infiniti Elite Extended Protection Plan - New	157	119
QualityGuard+Plus - Deluxe	118	14
QualityGuard+Plus - Supreme	70	10
QualityGuard+Plus - Powertrain	14	1
Premier Pre-Owned	3	0
Ultimate New	1	2
Total	1,406	339

The information requested in 2.a through 2.f is provided, when known, in a table titled, "SERVICE PLAN DATA" within the database titled PE11-038 REQUEST DATA.mdb on a DVD enclosed as Attachment A.

3. State the number of each of the following, received by Nissan, or of which Nissan is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
- Consumer complaints, including those from fleet operators;
 - Field reports, including dealer field reports;
 - Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
 - Property damage claims;
 - Third-party arbitration proceedings where Nissan is or was a party to the arbitration; and
 - Lawsuits, both pending and closed, in which Nissan is or was a defendant or codefendant.

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Nissan's assessment of the problem.

with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

a) Consumer complaints, including those from fleet operators:

229 complaints from Nissan's Consumer Affairs database, representing 213 unique VIN's

b) Field reports, including dealer field reports:

71 Dealer field reports, representing 71 unique VINs.

c) Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports:

There were no reports of crash, injury or fatality found that were related to the alleged defect.

d) Property damage claims, alleged to have resulted from alleged defect:

There are no property damage claims.

e) Third-party arbitration proceedings where Nissan is or was a party to the arbitration:

There are no third party arbitration proceedings.

f) Lawsuits, both pending and closed, in which Nissan is or was a defendant or codefendant:

There is one lemon law lawsuit (see the attached Complaint for the plaintiff's summary description of the alleged problem and causal and contributing factors); Nissan does not believe that the subject vehicle contained a safety-related defect. Abess Antar, plaintiff, v. Nissan North America, Inc. and Suburban Infiniti, Inc., defendants; In The Circuit Court for the County of Oakland in the State of Michigan; Docket Number 06-76259-NZ; Filed 7/27/2006.

4. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 3, state the following information:

a. Nissan's file number or other identifier used;

b. The category of the item, as identified in Request No. 3 (i.e., consumer complaint, field report, etc.);

c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;

d. Vehicle's VIN;

e. Vehicle's model and model year;

f. Vehicle's mileage at time of incident;

- g. Incident date;
- h. Report or claim date;
- i. Whether a crash is alleged;
- j. Whether a fire is alleged;
- k. Whether property damage is alleged;
- l. Number of alleged injuries, if any;
- m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2003 or 2007, or a compatible format, entitled "PE 11-038 REQUEST NUMBER FOUR DATA."

The information requested in 4.a through 4.m is provided, when known, in a table titled, "REQUEST NUMBER FOUR DATA" within the database titled PE11-038 REQUEST DATA.mdb on a DVD enclosed as Attachment A.

5. Produce copies of all documents related to each item within the scope of Request No. 4. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Nissan used for organizing the documents.

The requested documents are on a CD enclosed as Attachment B. The documents are organized by category.

6. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Nissan to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Nissan's claim number and total cost per claim;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer;
- k. Cause and Correction stated by dealer/technician; and
- l. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2003 or 2007, or a compatible format, entitled "PE 11-038 WARRANTY DATA."

The main purpose of the warranty system is to reimburse dealers for performing warranty repairs. Claims are submitted by dealers through an on-line computer system through the use of a set of codes. The codes are designed to allow flexibility for their use and, as such, do not supply a significant amount of information about why a particular repair was made, or specific details about the nature of the repair itself.

Within the limitations of our warranty system as it relates to the subject matter of this inquiry, the total count for all of the categories of paid warranty claims, as described in Request No. 6 that relate to repair or replacement of the subject component in the subject vehicles, is contained in Table 3 below.

Table 3. Warranty Data Summary

MODEL	MY2003	MY2004
M45	2,275	250

The information requested in 5.a through 5.i is provided, when known, in tables titled, "WARRANTY DATA" as prescribed on the pre-formatted table provided to Nissan by NHTSA, within the database titled PE11-038 REQUEST DATA.mdb on a DVD enclosed as Attachment A.

Describe in detail the search criteria used by Nissan to identify the claims identified in response to Request No. 6, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Nissan on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Nissan offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

The requested new vehicle warranty coverage documents are on a DVD enclosed as Attachment C.

The search criteria used by Nissan to identify the claims identified in response to Request No. 5 are set forth in Attachment B.

The service contract information was previously supplied as part of Question 2 and can be found in Attachment A.

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Nissan has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Nissan is planning to issue within the next 120 days.

There are no TSBs or other responsive documents that relate to the alleged defect in the subject vehicles.

8. Describe all modifications or changes made by, or on behalf of, Nissan in the design, material composition, manufacture, quality control, supply, or installation of the subject system, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The part number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and

Also, provide the above information for any modification or change that Nissan is aware of which may be incorporated into vehicle production within the next 120 days.

There have been no modifications to the subject system relating to the alleged defect, and there are no pending changes of which Nissan North America is aware.

9. Produce one sample of each of the following:

- a. New instrument cluster populated PCB and fuel level gauge sender/sensor; and
- b. Field return sample of the subject components exhibiting the subject failure mode.

Exemplar samples and field return samples have been shipped under separate cover.

10. Provide the following information for the subject components:

- a. Instrument cluster, fuel gauge and sender specification requirements document;
- b. Instrument cluster hardware architecture, complete 2/4 layer PDF schematics, and bill of material (BOM);
- c. List and briefly describe all software diagnostic routines performed on, instrument cluster, fuel supply unit and fuel level gauge sender/sensor;
- d. Instrument cluster, fuel gauge and sender FMEA/DRBFM/Fault Tree;
- e. Instrument cluster, fuel gauge and sender functional software requirements document;
- f. List all silicon ICs including ASIC (application specific integrated circuits) on the instrument cluster PCB including part numbers and suppliers; and
- g. Instrument cluster, fuel gauge and sender design verification and product validation test matrix and reports.

As requested by the agency, Nissan is providing the information in Attachment D in response to question 10.

Additionally, at NHTSA's request Nissan is providing responses to the following questions:

1. Is the resistor solder crack on the cluster board PCB a process flaw? Or a design constraint dictated by IGN current delta T?

The solder crack is a resistor i/o design issue, not a process issue.

2. What is Nissan failsafe strategy for fuel gauges on the defective and countermeasure design? Does a fault that open the electrical circuit causes the indicator to show the tank as being full? Explain current vs. countermeasure design.

The countermeasure is not using the circuit of the meter, but using the circuit of a sub amp applied during the remedy. In a remedied part, even if a solder crack does occur there is no influence on the performance of the fuel gauge. A circuit diagram is provided in Confidential Attachment D.

3. Please explain Nissan's countermeasure intent with installing a harness, are you re-designing the entire PCB to include the extra sub-amp?

The intent of the countermeasure is to circumvent the circuit on the meter with the installed sub amp. This amp and harness do not affect the entire PCB, only the fuel gauge circuit. Please see the circuit diagram provided in Confidential Attachment D.

4. Is Nissan doing any software changes to accommodate the countermeasure? are you activating the engine check light if the system fails?

A software change was not needed to remedy the issue. Nissan is confident that the repairs will be effective and that activation of the check engine light is not necessary.

11. Provide a synopsis comparing MY 2003-04 Nissan M45 instrument cluster, fuel gauge, and sender with MY 2006 M45 design, supplier, operating conditions, durability requirements and related test results.

As determined in discussions with NHTSA, a response is not required.

12. Furnish Nissan's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses;
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and

As indicated in Nissan's Part 573 report dated March 5, 2012, on some of the affected vehicles, heat generated by several components on the combination meter circuit board may cause solder cracks due to thermal shock. If the solder cracks, thereby creating an open circuit, the fuel gauge may read higher than the actual amount of fuel remaining in the gas tank or always indicate full. As a result of this condition, it is possible that the vehicle may run out gas without notice.

To remedy this issue, Nissan decided to conduct a recall campaign no. 12V088000.

ATTACHMENT A

CD with Information Related to Requests 1, 2, 4 and 6

This attachment contains a CD containing the information related to Request Numbers 1, 2, 4 and 6. The information was obtained from the Consumer Affairs database, the Tech Line Database, the legal department database and the field reports database as of December 14, 2011. The databases and Legal Files are updated daily.

ATTACHMENT B**Warranty Claims Data**

Warranty claims data were gathered from Warranty database as of December 14, 2011

The total counts of warranty claims are as follows: 2,525

The search criteria used by Nissan to identify the claims identified in response to Request Nos. 6 is as follows:

For the purpose of this response the customer and technician verbatim as well as part and operation names of each claim were searched for the following combinations of keywords. Items with at least one keyword from each of the following lists were identified as responsive to the inquiry. The resultant set was then matched with the appropriate part number codes for the subject components

Subject Components

PNC Code	Desc
17012	EC-ELECTRIC FUEL PUMP
17201	EC-FUEL TANK
24850	SPEEDOMETER
24875	ODOMETER & TRIP METER
25030	PRINTED CIRCUIT
25060	FUEL LEVEL SENSOR

Keyword List A

GAS%GAUGE
FUEL%GAUGE
FUEL%TANK
1/4 %
1/2 %
1/3 %
QUARTER
HALF
THIRD
3/4 %
2/3%

Keyword List B

OUT OF GAS
OUT OF FUEL
EMPTY
GAS%GAUGE
FUEL%GAUGE
FUEL%TANK

PE11-038

NISSAN

3/15/2012

ATTACHMENT D

Y34 FUEL meter
indicates higher than
actual amount

2012/2/28 NML CQ0