



September 3, 2010

David D. Dillon  
Sr. Manager  
Product Investigations & Campaigns

Mr. Scott Yon, Chief  
Vehicle Integrity Division (VID), NVS-212  
U.S. Department of Transportation  
National Highway Traffic Safety Administration (NHTSA)  
Office of Defects Investigation (ODI)  
Room W48-314  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

Reference: NVS-212am; PE10-022

Dear Mr. Yon:

Attached is Chrysler Group LLC's ("Chrysler") response to the referenced inquiry. In performing the analysis and reaching conclusions, and by providing the information contained herein, Chrysler is not waiving its claim to attorney work product and attorney-client privileged communications.

The rate of reported headlamp malfunction appears to have been higher than normal during the early life cycle of the subject vehicles, but it has clearly trended downward to normal warranty rates and there is no evidence to suggest that this trend will reverse. Also, the lack of harmful events being reported supports the conclusion that there is no demonstrative risk to motor vehicle safety for the remaining subject vehicles still in service. As a result, Chrysler believes this investigation should be closed.

Sincerely,

A handwritten signature in blue ink that reads "David D. Dillon".

David D. Dillon

Attachment and Enclosures

**Preliminary Statement**

On April 30, 2009 Chrysler LLC, the entity that manufactured and sold the vehicles that are the subject of this Information Request, filed a voluntary petition for relief under Chapter 11 of Title 11 of the United States Bankruptcy Code.

On June 10, 2009, Chrysler LLC sold substantially all of its assets to a newly formed company now known as Chrysler Group LLC. Pursuant to the sales transaction, Chrysler Group LLC assumed responsibility for safety recalls pursuant to the 49 U.S.C. Chapter 301 for vehicles that were manufactured and sold by Chrysler LLC prior to the June 10, 2009 asset sale.

On June 11, 2009, Chrysler LLC changed its name to Old Carco LLC. The assets of Old Carco LLC that were not purchased by Chrysler Group LLC, as well as the liabilities of Old Carco that were not assumed, remain under the jurisdiction of the United States Bankruptcy Court – Southern District of New York (*In re Old Carco LLC, et al.*, Case No. 09-50002).

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**Note: Unless indicated otherwise in the response to a question, this document contains information through July 19, 2010, the date the information request was received.**

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**Please repeat the applicable request verbatim above each response. After Chrysler's response to each request, identify the source of the information and indicate the last date the information was gathered.**

- 1. State, by model and model year, the number of subject vehicles Chrysler has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Chrysler, state the following:**
  - a. Vehicle identification number (VIN);**
  - b. Make;**
  - c. Model;**
  - d. Model year;**
  - e. Date of manufacture;**
  - f. Date warranty coverage commenced; and**
  - g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).**

**Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA."**

- A1. The 2005 model year Chrysler Town & Country, Dodge Caravan and Dodge Grand Caravan for the US market are all referred to as the RS model and were all built in two assembly plants, Windsor Assembly Plant (WAP) and St. Louis South Assembly Plant (SLSAP). All of these vehicles were built with the subject components (headlamps, body control module {or BCM}, front control module / integrated power module {or FCM/IPM}, headlamp switch, headlamp wiring, body wiring and Instrument Panel (I/P) wiring) which are all standard equipment on the subject vehicles. Though the subject components are standard, there are variations of the subject components depending on the vehicle lighting options. These options will be discussed in more detail in the response to Question #11. The total number of subject vehicles manufactured by Chrysler for sale or lease for the US market was 622,817.

The detailed response that lists the production data is provided in Enclosure 1 as a Microsoft Access 2000 table titled "PRODUCTION DATA."

2. **State, by model and model year, the number of each of the following, received by Chrysler, or of which Chrysler is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:**
  - a. **Consumer complaints, including those from fleet operators;**
  - b. **Field reports, including dealer field reports;**
  - 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;**
  - d. **Property damage claims;**
  - e. **Third-party arbitration proceedings where Chrysler is or was a party to the arbitration; and**
  - f. **Lawsuits, both pending and closed, in which Chrysler 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” and “d,” provide a summary description of the alleged problem and causal and contributing factors and Chrysler’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.**

- A2. The following summarizes the reports identified by Chrysler that relate to, or may relate to, the alleged condition in the subject vehicles. Chrysler has conducted a reasonable and diligent search of the normal repositories of such information.
  - a. There are 592 consumer complaints (Customer Assistance Inquiry Request or CAIR) that may relate to the alleged condition which represent 519 unique VINs.
  - b. There are 860 field reports responsive to the alleged condition, which represent 815 unique VINs.
  - c. There is 1 report alleging crash (involving a car / deer accident), 1 report of a minor non-crash related injury, and 0 reports of fatality that are responsive to this inquiry.

- d. There are 0 reports that allege property damage that are responsive to this inquiry.
- e. There are 0 third-party arbitration proceedings involving Chrysler that are responsive to this inquiry.
- f. There are 60 legal claims involving the subject vehicles that are responsive to one or more of the conditions alleged in this investigation. These claims all represent unique VINs.

Based on the analysis of these complaints, Chrysler has determined that there are a total of 1,512 complaints which represent 1,332 unique VINs. The largest category of complaints refers to headlamp flickering or intermittently operating, thus the system is often providing some level of forward headlamp illumination.

- 3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:**
- a. Chrysler's file number or other identifier used;**
  - b. The category of the item, as identified in Request No. 2 (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 make, 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 property damage is alleged;**
  - k. Number of alleged injuries, if any; and**
  - l. Number of alleged fatalities, if any.**

**Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."**

- A3. The detailed response that lists the customer complaints, field reports, and legal claims and lawsuits from Request No. 2, as requested in Items a. through l. is provided in Enclosure 3 which is a Microsoft Access 2000 table, titled "Request Number Two Data".

**4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Chrysler used for organizing the documents.**

A4. Copies of all documents within the scope of Request 2 are provided in Enclosure 4 – Field Data. The documents are organized by report type: CAIR, Field Report, or Legal Claim. For the customer complaints, the CAIR summaries are submitted in one .pdf file and the related documents are arranged in folders by CAIR number. The field reports are submitted in one .pdf file and the legal claims are arranged by claimant name.

**5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Chrysler 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. Chrysler's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. Vehicle's 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; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

**Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."**

A5. The warranty claims have been broken down below:

Labor Operation (LOP) Code	2005 MY Claims
081902: Electrical Modules – Body Control Module (BCM)	49703
088036: Electrical Switches – Headlamps	15652
085031: Electrical Lamps Housing – Headlamps	5154
081908: Electrical Modules – Front Control Module (FCM/IPM)	2352
085032 : Electrical Bulbs – Headlamps	648
089075: Electrical Wire Harness – Body	294
0892BJ: Electrical Wire Harness – Ground IP	200
0894LC: Electrical Wire Harness – Headlamp front end lighting (FEL)	190
0892LC: Electrical Wire Harness - IP	124

This table includes all paid claims for all subject components whether or not headlamp illumination was the complaint. It is important to note that the wiring harnesses and electronic control modules (BCM and FCM/IPM) facilitate many other vehicle functions aside from front exterior lighting. Therefore, the number of warranty claims shown here is an artificially high number with regard to the alleged condition in this investigation. See response to Question #11 for more details on these functions. Thus, Chrysler has not drawn conclusions regarding trends for the alleged condition in the subject vehicles based on warranty data alone.

The detailed response that lists the warranty claims is provided in Enclosure 5 - Warranty Data.

**6. Describe in detail the search criteria used by Chrysler to identify the claims identified in response to Request No. 5, 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 Chrysler 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 Chrysler 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.**

A6. The search criteria used by Chrysler to identify claims identified in the response to Request No. 5 can be found in the charts below:

Description of Repair	Labor Operation
Electrical Modules – BCM	081902
Electrical Modules – FCM/IPM	081908
Electrical Lamps Housing – Headlamps	085031
Electrical Bulbs – Headlamps	085032
Electrical Lamps, High intensity discharge system	085035
Electrical Switches – Headlamps	088036
Electrical Wire Harness – Body	089075
Electrical Wire Harness – Ground IP	0892BJ
Electrical Wire Harness - IP	0892LC
Electrical Wire Harness – Headlamp FEL	0894LC

Failure Code	Code Descriptions
11	Broken or Cracked
14	Short or Open
18	Circuit Open
48	Grounded or Shorted
51	Improperly Installed
58	Internal Defect
61	Intermittent Operation
65	Leaks
83	Connection Loose
FA	Fastener Stripped
FC	Fastener Cracked or Broken
FG	Fastener Loose or Improperly Installed



FM	Flash Module
P8	New Part
UC	Unavailable
UR	Containment Repair
X2	Split, Cut or Torn
X6	Terminal(s) Damaged
1C	Connection Loose/ Not Attached
1T	Terminal(s) Bent
2C	Connector Broken/ Fractured
5W	Broken Splice in Harness
37	Excessive Wear
3T	Terminals Corroded
4T	Terminal(s) not properly crimped
4W	Wires Burned/ Damaged
5T	Terminal(s) Pushed Out
1W	Wires cut by sharp edge
6T	Terminal(s) Spread
2W	Wires cut by moving mechanism
3W	Wires cut by bolt/ screw
2T	Terminal(s) Broken/ Fractured

The standard warranty offered on the subject vehicles was 36 months / 36,000 miles. There was no extended warranty coverage for the subject components, but there were service contract coverage options available for purchase through Chrysler's authorized dealers which extend coverage on the subject components. Beyond standard warranty coverage, BCM claims (LOP 081902 and 081908), headlamp switch claims (LOP 088036) and wiring claims (LOPs 089075 / 0892BJ / 0892LC / 0894LC) are covered by any "Added Care Plus" options, "Maximum Care" options or "Certified Pre-Own" option for the 1<sup>st</sup> 3 months / 3,000 miles. The coverage choices available within these plans range from 36 months / 45,000 miles to lifetime unlimited mileage. The total number of subject vehicles that are or have been covered by one of the service contract plans is listed in Enclosure 6 – Extended Service Contracts Conf Bus Info which has been submitted under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment.

Any service contract claims for the applicable labor operation codes are included in the warranty data being provided in response to Question 5. Chrysler notes that owners may also have the opportunity to purchase additional service contract coverage through other third-party providers, but Chrysler does not have access to that data.

**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 Chrysler 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 Chrysler is planning to issue within the next 120 days.**

A7. There is one GPOP Tech Tip which was released on May 3, 2006, instructing service personnel on how to remove and install the headlamp switch from the instrument panel so as not to damage the switch. A copy of this document is in Enclosure 7 - Dealer Communications. There are no related dealer communications planned to be released in the next 120 days.

**8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Chrysler. For each such action, provide the following information:**

- a. Action title or identifier;**
- b. The actual or planned start date;**
- c. The actual or expected end date;**
- d. Brief summary of the subject and objective of the action;**
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and**
- f. A brief summary of the findings and/or conclusions resulting from the action.**

**For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.**

A8. Chrysler has split the assessments into confidential and non-confidential lists. The non-confidential assessments are listed below and the confidential assessments are listed in Enclosure 8A – Assessments Conf Bus Info. Each list refers to the appropriate enclosure for each assessment as applicable. The confidential enclosures have been sent under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment.

**Assessment 1: Complaint Analysis by Open / Build Dates & Mileage**

<b>Start Date</b>	<b>End Date</b>	<b>Engineering Group Responsible</b>
7/19/2010	8/25/10	Chrysler Product Investigations & Recall Administration

Complaint Analysis Assessment Objective: Determine if there are any identifiable trends in the number of complaint vehicles (any subject vehicle with a CAIR, field report or legal claim associated with the alleged condition) sorted by open date (date of complaint), build date of the vehicle and by the mileage of the vehicle when the complaint occurred.

Complaint Analysis Assessment Results: See Enclosure 8B – Complaint Analysis (Time & Mileage) for details on the results of this analysis.

Complaint Analysis Assessment Summary: The complaint analysis by open date shows a significantly declining trend with regard to complaints for the alleged condition. The complaint analysis by vehicle build date shows peaks and valleys for the complaint rate during the 2005 model year, but not a clear trend. The complaint analysis by mileage shows a clear downward trend in the complaint rates by mileage, even within the 3/36 warranty period. This data strongly suggests that this issue is less likely to occur over time and vehicle mileage.

**Assessment 2: Complaint Analysis by Sales Code Options**

Start Date	End Date	Engineering Group Responsible
7/19/2010	8/25/10	Chrysler Product Investigations & Recall Administration

Complaint Analysis Assessment Objective: Determine if there are any identifiable trends by front lighting sales codes (for auto-headlamps, fog lamps in particular) with regard to the complaint vehicles.

Complaint Analysis Assessment Results: The results of this analysis are shown in the table below.

Option Description	Sales Code	# Subject Vehicles		% Subject Vehicle with option
		with option	Total	
Auto-Headlamps	LMG	50785	622817	8.2%
Fog Lamps	LNJ	153067	622817	24.6%

Option Description	Sales Code	# Complaint Vehicles		% Complaint Vehicle with option	% under-represented
		with option	Total		
Auto-Headlamps	LMG	79	1332	5.9%	27.3%
Fog Lamps	LNJ	274	1332	20.6%	16.3%

Complaint Analysis Assessment Summary: The sales option analysis shows that complaint vehicles with auto-headlamps and fog lamps are somewhat under-represented in the complaint data. If there was no relationship between these lighting options and the occurrence of a complaint for the alleged condition, then it would be expected that the percent of complaint vehicles with these sales options would be about the same as the percent of the total population of subject vehicles with these options. Because this is not true, it appears that vehicles with either fog lamps and / or auto-headlamps are less susceptible to complaints for the alleged condition.

**Assessment 3: Field Report Study of Repair Actions**

Start Date	End Date	Engineering Group Responsible
7/20/2010	Ongoing	Chrysler Product Investigations & Recall Administration

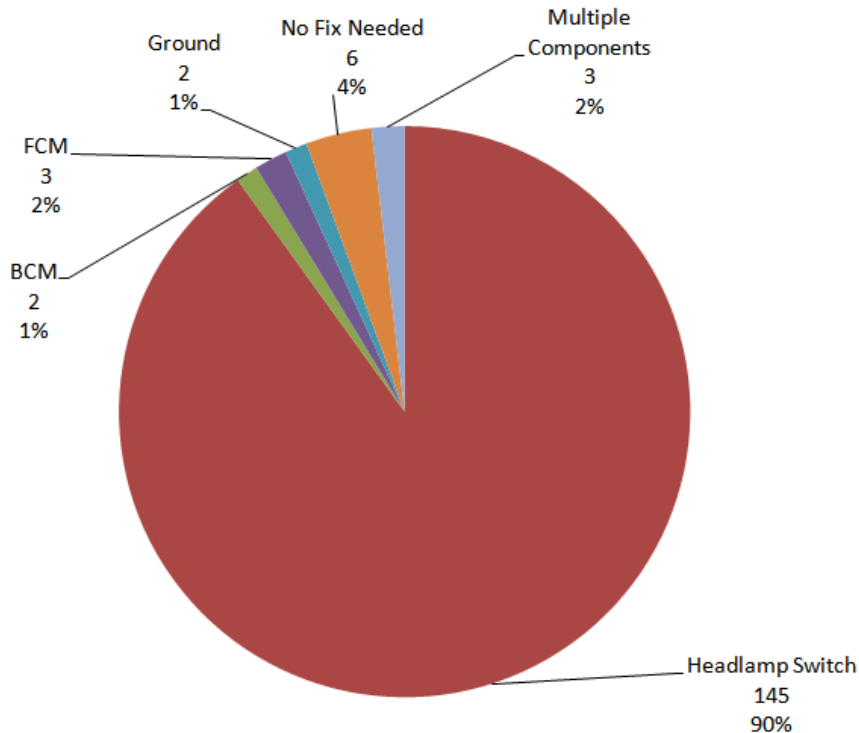
Field Report Study Objective: Determine how the complaint vehicles in the field report submission were being repaired.

Field Report Study Results: Chrysler completed a study of the repairs conducted for the field reports for which a repair was listed. Out of the 861 reports, repairs were listed for 161 of them. Of these 161, Chrysler assessed what repair action was taken by the field personnel. A summary of the results is shown below.

Field Report Study Summary: A significant majority of the repairs were to replace the headlamp switch (approximately 90%). Chrysler is still reviewing the repair records of these 161 vehicles to ensure that the repair was effective and that there are no repeat repairs for the same complaint.

**PE10-022 Repair Study of QNA (Field) Reports**

**161 Reports with Repair Listed**



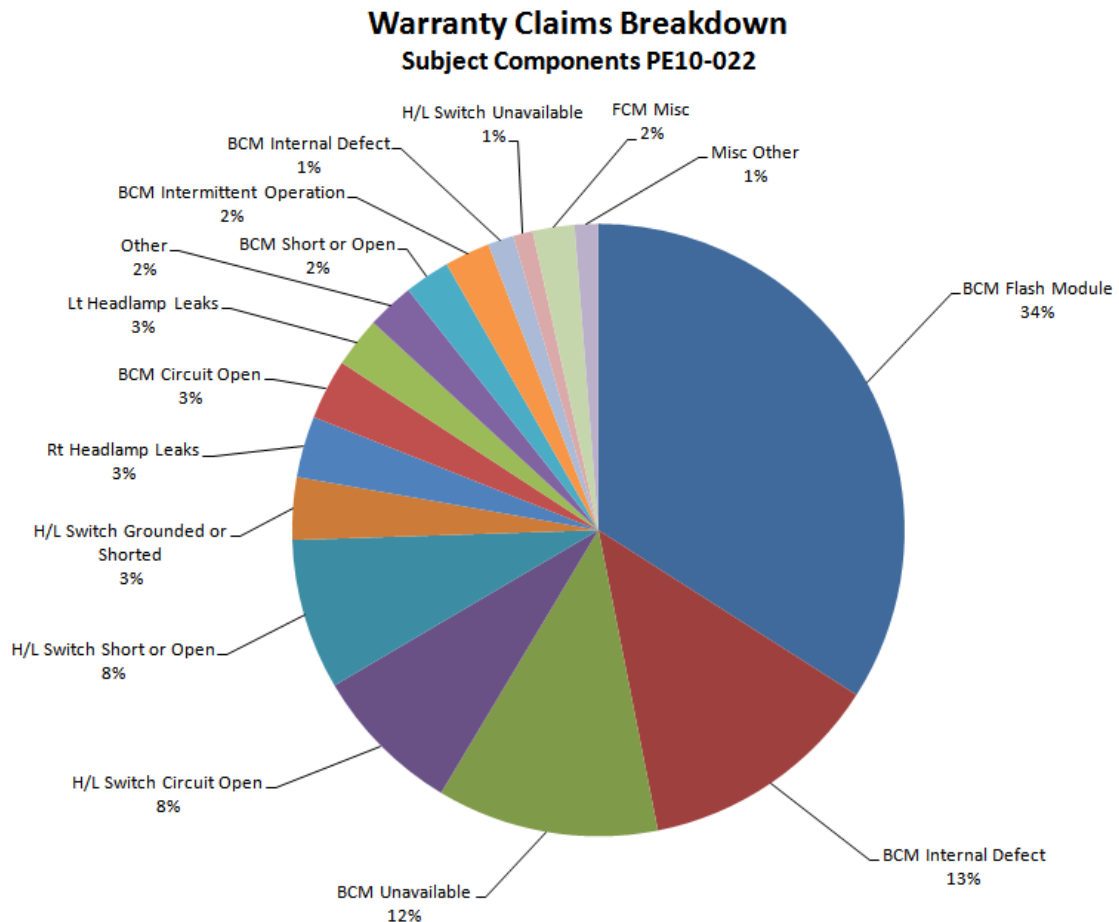
**Assessment 4: Analysis of Subject Component Warranty Claims**

Start Date	End Date	Engineering Group Responsible
7/21/2010	8/15/2010	Chrysler Product Investigations & Recall Administration

Analysis of Subject Component Warranty Claims Objective: Determine the breakdown, by subject component and labor operation, of warranty complaints submitted in this response.

Analysis of Subject Component Warranty Claims Results: The study results are shown below.

Analysis of Subject Component Warranty Claims Summary: Over half of the warranty claims are related to the BCM (flash or software update or unit replacement) and another 19% or so due to the headlamp switch. It is important to note, however, that the BCM controls many other functions aside from front exterior lighting and there is no way to extract only the complaints related to the alleged condition as many of the warranty claims do not have narratives. Thus, Chrysler has not drawn any conclusions from this data.



**Assessment 5: Warranty MOPMIS Analysis of Subject Components**

<b>Start Date</b>	<b>End Date</b>	<b>Engineering Group Responsible</b>
7/15/2010	8/5/2010	Chrysler Product Investigations & Recall Administration

Warranty MOPMIS Analysis Objective: Determine the warranty rates by month of production and months in service (MOPMIS), by subject component and by exterior front lighting sales optional features (fog lamp or auto-headlamps). This will indicate which months of production have relatively higher warranty rates and whether certain sales options have higher warranty rates than others.

Warranty MOPMIS Analysis Results: The study results are shown in Enclosure 8C - MOPMIS Analysis.

Warranty MOPMIS Summary: Both the BCM and headlamp switch have significantly higher warranty rates than the balance of the subject components (headlamps, wiring and FCM/IPM). Additionally, the warranty rates for the BCM drop significantly in the latter part of the 2005 model year, while the warranty rates for the headlamp switch drop significantly in the early part of the 2006 MY. There does appear to be a significant headlamp switch warranty rate reduction for the subject vehicles with auto-headlamp option as the rates with this sales option are lower by about 50% compared to the aggregate population.

**Assessment 6: Analysis of VOQ Subject Components**

<b>Start Date</b>	<b>End Date</b>	<b>Engineering Group Responsible</b>
7/15/2010	9/20/2010 (projected)	Chrysler Product Investigations & Recall Administration

Analysis of VOQ Subject Vehicles Objective: Diagnose and repair the cause of the alleged condition on VOQ complainant vehicles.

Analysis of VOQ Subject Vehicles Results: Customers with subject vehicles identified from three recent VOQs have been contacted to attempt to diagnose and repair the described alleged condition. To date Chrysler has had one vehicle diagnosed as a headlamp switch issue by a dealer technician and repaired. The suspect headlamp switch is to be returned to the Chrysler Quality Engineering Center for analysis by the supplier. This activity has not been completed to date. Two other customers have been contacted multiple times but have not yet returned calls.

Analysis of VOQ Subject Vehicles Summary: No summary is currently available as this assessment has not been completed.

- 9. Describe all modifications or changes made by, or on behalf of, Chrysler in the design, material composition, manufacture, quality control, supply, or installation of the subject components, 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 numbers (service and engineering) of the original component;**
  - e. The part number (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**
  - h. Whether the modified component can be interchanged with earlier production components.**

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

- A9. All of the subject components are purchased assemblies, with the exception of the BCM which was supplied by an internal Chrysler supplier. A detailed summary of the available change information for the subject components is being submitted in Enclosure 9 – Subject Component Changes - Conf Bus Info to the Office of the Chief Counsel, under separate cover with a request for confidential treatment.
- 10. State the number of the subject components that Chrysler has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale.**
- a. Subject components; and**
  - b. Any kits that have been released, or developed, by Chrysler for use in service repairs to the subject component/assembly**

**For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also, identify by model and model year, any other vehicles of which Chrysler is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.**



- A10. Part sales information is included in Enclosure 10 – Part Sales. It is important to note that all subject component service part sales have been included, whether they are related to the alleged condition or not. It is difficult to determine whether the alleged condition prompted these part sales as there are circumstances not related to the alleged condition that generate sales. For instance, the BCM provides dozens of functions not related to front exterior lighting, and therefore any BCM replacements related to repairs for such functions increase part sales. Additionally, headlamps are often purchased for crash related repairs that are unrelated to the alleged condition. Thus, Chrysler has concluded that the use of part sales data will not be conclusive to assess any trend related to the alleged condition.
- 11. Provide a detailed technical description of the subject vehicle's headlight system, the features and functionality it offers, and the components that it consists of. Include in the description a list of all components used, including by not limited to those mentioned in the subject component statement above, and describe how the components interact with each other to illuminate the headlights when the headlight switch is activated by the operator. Provide an electrical and/or mechanical schematic that shows the components, how power and ground is provided to each, and the functionality of the electrical circuits that connect them. Provide a diagram that shows where the components are located in the vehicle. Describe any optional features that are offered for the headlight system, such as auto dimming or illumination, etc.**
- A11. Chrysler is providing NHTSA ODI with the parts list, technical information, descriptions and diagrams that describe the functionality of the subject components and the headlamp system in particular. See Enclosure 11 Headlamp System for a technical summary of the headlamp system functionality and the individual components' operation, interconnectivity and where they are located in the vehicle. This enclosure also includes the requested electrical schematic including circuit power and grounding, highlights from the subject vehicles' owner's manual describing headlamp operation and a single page summary of all of the functions the BCM and FCM/IPM components control which include those of front exterior lighting.

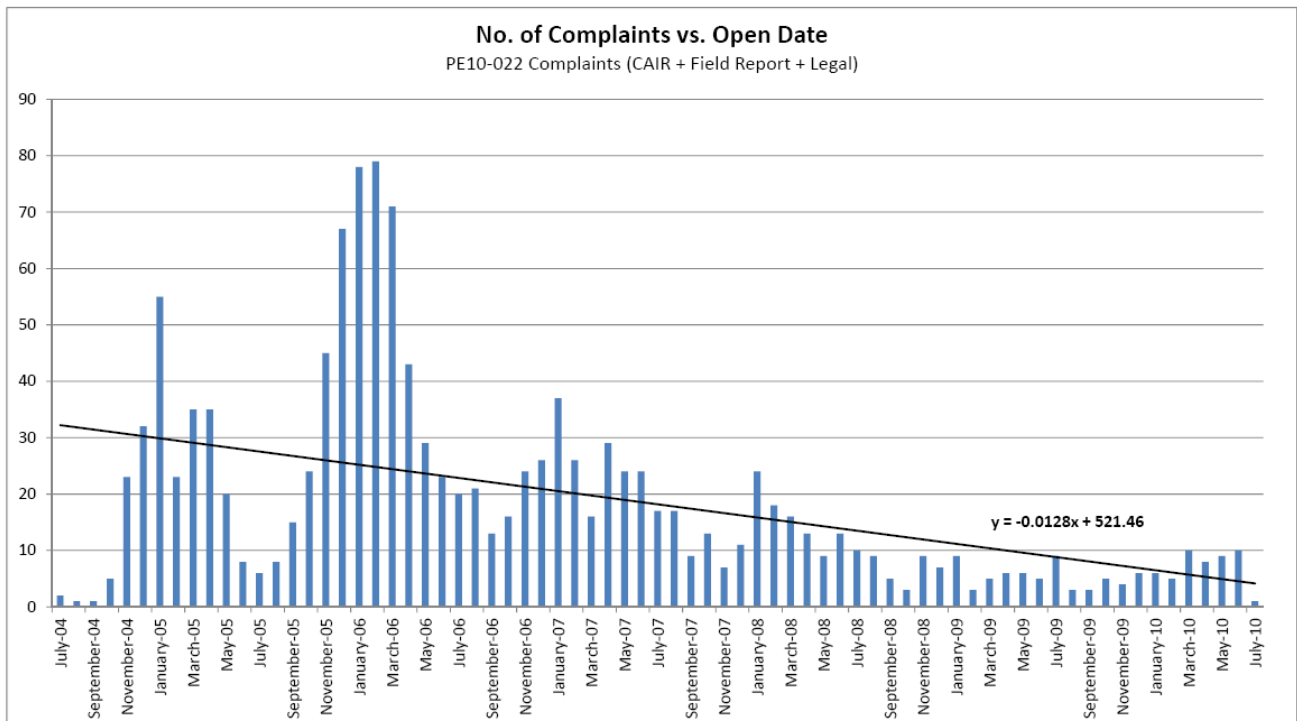
- 12. Furnish Chrysler's assessment of the alleged defect in the subject vehicles, including:**
- a. The causal or contributory factor(s);**
  - b. The failure mechanism(s);**
  - c. The failure mode(s);**
  - d. The risk to motor vehicle safety that it poses;**
  - e. What warnings, if any, the operator would have that the alleged defect was occurring or has occurred, or subject component was malfunctioning or has malfunctioned; and**
  - f. The reports included with this inquiry.**

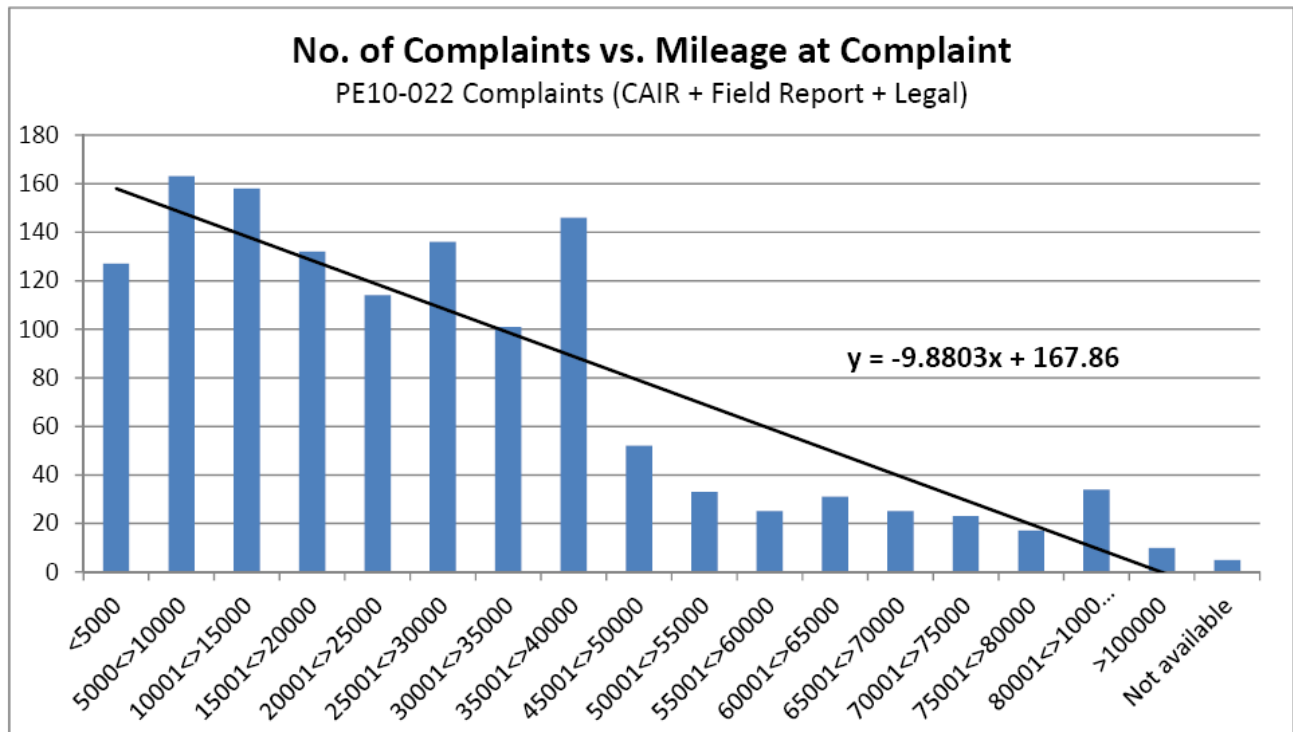
A12. The headlamp system in the subject vehicles utilizes a headlamp switch, a BCM and an FCM/IPM along with the associated wiring and the headlamps themselves. The system uses multiplexed signals from the headlamp switch, which interprets user commands and sends the appropriate voltage to the BCM which interprets the voltage and relays the command to change headlamp state to the FCM/IPM, which carries out the command.

Chrysler has made the following observations during this investigation:

1. The low warranty rates for the headlamps, FCM/IPM, and the associated wiring for the headlamp system strongly suggests that these components are not potential causes for the alleged condition.
2. Although the BCM actually has the highest percentage of warranty claims submitted in this response, there are dozens of functions controlled by the BCM that are unrelated to the headlamp function. The warranty claims for these unrelated functions are included in this response. Furthermore, the replacement of the BCM alone has not been shown to remedy the headlamp malfunctions. Accordingly, while the BCM contribution has not been completely ruled out, this component is not the focus of our investigation.
3. The headlamp switch is thought to be a significant contributor to headlamp complaints. The headlamp switch was initially supplied by Delphi during the first two months of the 2005 MY production with very low warranty rates (see headlamp MOPMIS charts in Enclosure 8C). Thereafter, TRW supplied the 2005 MY headlamp switches that used a different design and process and the warranty rates for the headlamp switch increased significantly. As noted in Enclosure 8G, the increase in the headlamp switch warranty claims may be attributed to debris contamination during assembly of the switch by TRW. This document indicates that manufacturing process changes were implemented by TRW. The warranty claim rate subsequently began to significantly decrease (see headlamp MOPMIS charts in Enclosure 8C).

Additionally, there are two noteworthy trends in the field data. First, the subject vehicles with the auto-headlamp option have a lower warranty complaint rate when compared to vehicles without this option (see headlamp MOPMIS charts in Enclosure 8C). This suggests the auto-headlamp option is less susceptible to experiencing the alleged condition. Second, and most importantly, there is a significant, decreasing trend for headlamp malfunction complaints received by Chrysler. The charts below of complaints (taken from Enclosure 8B) show a clear downward trend in the number of reported headlamp malfunctions over time and with increasing vehicle mileage. It is important to note that the majority of complaints were made while the vehicles were still under warranty. It also appears that the subject vehicles that were once at risk for a headlamp malfunction have already been repaired.





It is also important to point out that despite there being over 600,000 subject vehicles in service over six years, there is only one known minor crash involving a car / deer accident (no injuries) and a separate non-crash related report of minor injury. There were also no reports of property damage. The minimal safety risk experienced over the past six years is likely because the largest category of complaints -- flickering or intermittent headlamp operation -- alerts the vehicle operator that the headlamp system is not operating properly and may require service, while at the same time providing some level of illumination while driving.

In short, while the rate of reported headlamp malfunction appears to have been higher than normal during the early life cycle of the subject vehicles, it has clearly trended downward to much lower rates and there is no evidence to suggest that this trend will reverse. Furthermore, corrective action was taken by the headlamp switch supplier, TRW, during early 2006 MY production. Also, the lack of harmful events being reported supports the conclusion that there is no demonstrative risk to motor vehicle safety for the remaining subject vehicles still in service. This investigation is analogous to both EA05-009 and EA06-019, in which agency concluded -- on facts similar to this investigation -- that a safety-related defect did not exist and closed these investigations. Chrysler believes the same conclusion should be reached in this investigation.