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OFFICE OF THE
DIRECTOR

DaimlerChrysler Corporation
Stephan J. Speth
Director
Vehicle Compliance & Safety Affairs

January 28, 2005

Ms. Kathleen C. DeMeter, Director
Office of Defects Investigation
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 Seventh Street, SW
Washington, D.C. 20590

Dear Ms. DeMeter:

Reference: NVS-212jfa; EA04-031

This document contains DaimlerChrysler Corporation's ("DCC") response to the referenced inquiry regarding 2001-2003 model year DCC minivans equipped with the power liftgate system. In reaching our analysis and conclusions, and by providing the information contained herein, DCC is not waiving its claim to attorney work product and attorney-client privileged communications.

DCC previously thoroughly investigated allegations of power liftgate (PLG) opening while driving on minivans equipped with PLG and determined that, when properly closed, the PLG cannot and will not open while a vehicle is being driven. Engineering analysis established that a premature signal cancellation from the PLG module to the PLG latch causes the latch to close prematurely. DCC's detailed analysis clearly establishes that the condition can only occur when certain PLG modules are paired with certain latch assemblies. Therefore, DCC has established that only in rare cases will a vehicle exhibit this condition.

DCC contends that a small number of early MY2003 minivans equipped with the PLG system could experience the condition of the PLG latch closing prematurely. DCC's investigation found that during the MY2003 minivan launch, the capacitor supplier for the PLG module shipped an undetermined number of out of specification capacitors to the PLG module supplier. These capacitors may have been built into early MY2003 PLG modules. In December, 2002, the capacitor supplier was changed and quality inspections were improved to assure the proper components were utilized. Since the implementation of this change, the number of customer complaints has been virtually eliminated. DCC believes the scope is

limited to the early MY2003 minivans built from August 2, 2002 through December 18, 2002. DCC analysis found that the majority of the customer complaints involve early built MY2003 minivans.

DCC reviewed the customer complaints and warranty claims for both the MY2001 and MY2002 and determined that the vast majority can be attributed to nuisance issues such as inadvertent key fob operations, liftgate not opening/closing with the key fob, PLG not opening/closing properly due to obstacle detection sensitivity, liftgate or latch switch failures, and latch motor shorted. It is DCC's strong belief that the dealerships may have been replacing the PLG latch on vehicles because they did not fully understand and properly diagnose the customer's complaint. Therefore, DCC has issued several Technical Service Bulletins which are included with this response.

DCC asserts the majority of the customer complaints relating to the PLG opening while driving occurred during the early MY2003. DCC modified the PLG module by changing the capacitor supplier in December, 2002. Since this change was implemented, DCC is only aware of one complaint, which was provided to NHTSA in the PE04-054 response. Furthermore, the condition is not a defect and does not present an unreasonable risk to motor vehicle safety. There are no accidents or injuries associated with this condition. Additionally, there are visual and audible indicators to the customer that the liftgate is not properly closed, as previously discussed in the October, 2004 technical review. As was further demonstrated to NHTSA during this review, the liftgate will open immediately during normal low speed driving maneuvers if it is not latched. In the rare event the condition does occur, the customer can manually release the latch and properly close the liftgate. Nonetheless, in order to ensure that any intermittent conditions are properly diagnosed and repaired, DCC is in the process of issuing an additional Technical Service Bulletin to our dealerships.

Sincerely,


Stephen J. Speth

Attachment and Enclosures

- Q1. State the number of each of the following, received by DCC, or of which DCC 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 DCC is or was a party to the arbitration; and**
 - f. Lawsuits, both pending and closed, in which DCC is or was a defendant or codefendant.**

For subparts "a" through "f," 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 DCC'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.

- A1. The following summarizes the non-privileged reports received by DCC that relate to, or may relate to, the alleged condition in the subject vehicles since the PE04-054 response on September 17, 2004. DCC has conducted a reasonable and diligent search of our normal repositories of such information.**
- a. There are a total of 15 customer complaints that may relate to the alleged condition and that contain 14 unique vehicles.**
 - b. There are 12 field reports that contain 11 unique vehicles.**

- c. There are zero claims alleging crash, injury, or fatality that are responsive to this inquiry.
- d. There are five reports that allege property damage that are responsive to this inquiry. Property damage for the purpose of this response is defined as any non-vehicle component (clothing, briefcase, etc.) that was allegedly damaged during the reported incident.
- e. There are no third-party arbitration proceedings involving DCC that are responsive to this inquiry.
- f. There are two legal claims involving DCC that are responsive to this inquiry. Both legal claims have a related customer complaint in the DCC system.

DCC's analysis of customer complaints on a rate basis indicates that approximately 191 alleged conditions per 100,000 vehicles involve MY2003 vehicles while approximately 13 alleged conditions per 100,000 vehicles involve MY2001 and MY2002 vehicles. This can be attributed to the capacitors located on the PLG latch clutch driver circuit installed on the PLG module printed circuit board which may have been out of specification on a small number of modules. The out of specification capacitors could allow electrical noise to disable the PLG latch clutch driver. Capacitors removed and inspected from a small quantity of MY 2001 and MY 2002 vehicles were determined to be within specification.

DCC contends that the allegation of the PLG opening while driving, because of the premature signal cancellation of the PLG latch, is not a safety issue. None of the complaints allege accident or injury. The liftgate, if not closed properly, will immediately rise under typical driving maneuvers and the customer will get both visual (pronounced gap) and audible (significant road/exterior/wind noise) feedback of this condition. If the condition does occur, the customer can manually release the latch and properly close the liftgate. Nonetheless, in order to ensure that any Intermittent conditions are properly diagnosed and repaired, DCC is in the process of issuing a Technical Service Bulletin (TSB) to our dealerships. See Enclosure 4 – SERVICE BULLETINS.

Q2. Separately, for each item or report (consumer complaint, field report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

- a. DCC'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 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;
- l. Number of alleged fatalities, if any; and

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

- A2. The detailed response that lists the customer complaints and field reports, from Request No. 2, as requested in Items a. through l. is provided in Enclosure 1 as a Microsoft Access 2000 table, titled "REQUEST NUMBER TWO DATA".
- Q3. 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 DCC used for organizing the documents.
- A3. Copies of all documents within the scope of Request No. 2 are provided in Enclosure 2 – COMPLAINTS AND FIELD REPORTS, on the enclosed CD-ROM.
- Q4. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by DCC 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. DCC's claim number;
- 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; and
- k. Comment(s), if any, by the dealer/technician relating to the claim and/or repair.

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

- A4. DCC previously defined, in the September 17, 2004 PE04-054 response, the subject components as any component involved in the operation of the PLG system. The following list details these components: Power Liftgate Module, Power Liftgate Latch, Power Liftgate Motor, Body Controller, Key Fob, RKE (Remote Keyless Entry) Receiver, Sentry Key Remote Entry Module (SKREEM) and Overhead Console Switches (PLG and power sliding door (PSD) switches). DCC is providing warranty claim information for Labor Operations (LOP) associated with these components. The count of warranty claims by LOP are shown in the chart below:

08-19-31-01	4,149	2,148	1,874
23-41-01-10	23,054	9,833	5,738
23-41-04-09	295	133	55
08-52-50-01	1,556	644	506
08-52-52-01	335	180	105
08-80-28-01	765	548	516
08-80-28-02	2,103	1,658	1,098
08-80-28-03	382	375	209
08-19-02-01	9,891	5,683	2,939
08-80-49-01	241	162	104
23-40-47-05	170	90	115

It is impossible to determine what any particular warranty repair is for. There are other random issues that are not related to this alleged condition, yet still trigger replacement of the subject components. DCC reviewed the narratives for the MY2001 through MY2003 minivans. Most of the MY2001 through MY2003 narratives reference conditions relating to inadvertent key fob activations, PLG liftgate not opening with key fob, PLG not opening or closing correctly, and liftgate or latch switch operation. DCC has issued multiple TSBs to address customer nuisance conditions that are not related to this inquiry, but still result in replacement of the subject components. In December, 2000, DCC released TSB #23-035-00 Rev. B, which addressed customer complaints relating to the power mode closes the liftgate but does not open the liftgate. In January, 2003, DCC released TSB #23-004-03, which addressed the power sliding door and/or power liftgate will pop off but not power open. The TSB documents are provided in Enclosure 4 – SERVICE BULLETINS. DCC has therefore concluded that the warranty cannot be used to determine a trend related to the alleged condition.

The detailed response that lists the warranty claims is provided in Enclosure 3 as a Microsoft Access 2000 table, titled "WARRANTY DATA".

- Q5. Describe in detail the search criteria used by DaimlerChrysler to identify the claims identified in response to Request No. 4 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.**
- A5. The search criteria used by DCC to identify claims to Request No. 5, can be found in the chart below:**

Module, Power Liftgate – Replace	08-19-31-01
Latch, Liftgate – Replace	23-41-01-10
Striker, Liftgate Latch – Replace	23-41-04-09
Motor Assembly, Power Liftgate – Test and Replace	08-52-50-01
Actuator, Power Liftgate Motor Engage – Replace	08-52-52-01
Keyless Entry, Receiver – Replace	08-80-28-01
Keyless Entry, Transmitter – Replace	08-80-28-02

Keyless Entry, Batteries - Replace	08-80-28-03
Body Control Module - Replace	08-18-02-01
Switch, Full Open PLG - Replace	08-80-49-01
Gear & Rod, PLG - Replace	23-40-47-05

DM	Damaged Module	50	Improper Adjustment
UP	Unable to Program	51	Improperly Installed
X6	Terminals Damaged	96	Solenoid Defect
1T	Terminal(s) Bent	UR	Containment Repair
18	Circuit Open	14	Burned or Burned Out
2C	Connector Broken/Fractured	37	Excessive Wear
2T	Terminal(s) Broken/Fractured	68	Noisy
3T	Terminal(s) Corroded	87	Rusted
48	Grounded or Shorted	27	Damaged
58	Internal Defect	6X	Weak
SE	Shortage and/or Error	SU	Short Range
06	Bent	61	Intermittent Operation
07	Blinds, Sticks, or Seized	B2	Electrical Drain
11	Broken or Cracked	UC	Uncodeable
ML	Check Engine/Service Engine	83	Connection Loose
SV	Programming Required	08	Blocked
FA	Fastener Stripped	FC	Fastener Broken/Cracked
FD	Fastener Missing	FG	Fastener Loose/Improperly Installed

The standard warranty offered on all subject vehicles was 36 month / 36,000 miles. There is no extended warranty coverage options related specifically to the subject components. Owners may have purchased additional warranty coverage through third-party providers not affiliated with DCC; this warranty data is not available to DCC and is not included in this response.

- Q6. In its September 17, 2004 response to ODI's August 4, 2004 Preliminary Evaluation (PE) information request letter, DCC identified a condition by which a premature signal cancellation from the PLG module to the PLG latch causes the PLG latch to become stuck in a "semi-closed state", the door can rise (not power open) to an open position while being driven. Further, DCC state in part: "...the condition can only occur when certain

PLG modules are paired with certain latch assemblies." Identify the following:

- a. The part number, production date, and any other identifying characteristics of the "certain PLG modules";**
- b. The part number, production date, and any other identifying characteristics of the "certain latch assemblies"; and**
- c. All vehicles, by model, model year and VIN, that were produced with the "certain PLG modules" paired with the "certain latch assemblies."**

A6.

- a. The part number for the "certain PLG modules" is 04686687AM. The production date for the 04686687AM part number is approximately August 2, 2002 through December 18, 2002. The only identifying characteristics of the "certain PLG module" are the part number and the Julian date coded located within the module software.**

04686687AM	8/2/2002 - 12/18/2002
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- b. DCC attempted to determine what attributes define "certain latch assemblies" through an extensive root cause analysis conducted by a team of Black Belt engineers. DCC was not able to define "certain latch assemblies". DCC's Black Belt team did determine that when a controller with revised capacitors, part number 04686687AN, is placed in a minivan experiencing the condition of the PLG latch closing prematurely, the condition will no longer occur. Please refer to the September 17, 2004 PE04-054 response, CONFIDENTIAL MATERIAL, Enclosure 3 - Black Belt Study.**
- c. DCC asserts the vast majority of the customer complaints relating to the PLG opening while driving occurred during the early MY2003 build from August 2, 2002 to December 18, 2002. It is impossible for DCC to reduce the scope of these vehicles and identify exactly which vehicles were built with "certain latch assemblies" paired with "certain PLG modules". DCC's investigation has established that "certain PLG modules" are a small number of modules with out of specification capacitors on the PLG latch clutch driver circuit. DCC attempted to determine what contributed to the "certain latch assemblies" through an extensive root cause analysis conducted by a team of Black Belt engineers. DCC emphasizes that the**

condition can only occur when certain PLG modules are paired with certain latch assemblies. It should be noted that any vehicles serviced since the PLG module change on December 18, 2002 have been serviced with the revised PLG module and therefore can no longer exhibit the alleged condition regardless of the latch assembly. Furthermore, as stated previously, DCC is releasing a Technical Service Bulletin to assist our dealerships to ensure the proper diagnosis and repair of any intermittent complaints of this condition.

- Q7. In its September 17, 2004 PE response, DCC also stated the following regarding a PLG latch becoming stuck in a semi-closed state: "...during the 2003 model year, DCC implemented a product improvement internal to the PLG module to eliminate the potential occurrence of this rare condition. Thus, any vehicle repaired since that change would have been repaired with the updated module." Identify the following:**
- a. The product improvement, modification, or change number;**
 - b. A description of the modification or change to the module;**
 - c. The date on which the improved module went into vehicle production;**
 - d. The date on which the improved module was available as a service part;**
 - e. The part number of the improved module when used as a production part; and**
 - f. The part number of the improved module when used as a service part.**
- A7.**
- a. DCC engineering changed the capacitor supplier as well as the capacitor values for the PLG latch clutch driver circuit in December, 2002. The change number associated with capacitor change is CN #21121-M06.**
 - b. In December, 2002 DCC engineering released a new PLG module. The new PLG module incorporated both software and hardware changes. The software changes updated diagnostic enhancements while the hardware changes were to the capacitors located on the PLG latch clutch motor driver circuit. The capacitors value changed in addition to the capacitor supplier. The hardware change was implemented to eliminate any electrical noise interference on the PLG latch clutch driver circuit.**

- c. On December 18, 2002, the production assembly plants started building all vehicles with the revised PLG module.
 - d. On December 18, 2002, the new PLG module was available as a new service part for any vehicle requiring a new PLG module.
 - e. The production part number for the new PLG module released on CN #21121-M06 is 04686687AN.
 - f. The service part number for the new PLG module, released on CN #21121-M06 is 04686687AN.
- Q8. ODI notes that the MY 2003 vehicles stand out with approximately 70% of the consumer reports but only accounts for approximately 32% of the subject vehicles. What is DCC's assessment as to why the MY 2003 vehicles stand out?**
- A8. During the launch of the MY2003 subject vehicles, the capacitors located on the PLG motor driver circuit installed on a small number of the PLG module printed circuit boards may have been out of specification. The out of specification capacitors could allow electrical noise to disable the PLG latch clutch driver. If this condition occurred during a PLG open cycle, the latch can become stuck in an unopened state. In this state, the liftgate will not close during a PLG close cycle and not allow the latch to cinch properly on the striker, thus allowing the liftgate to rise during typical low speed driving maneuvers if it were not previously detected by the visual and audible indicators. Capacitors removed and inspected from a small quantity of MY2001 and MY2002 subject vehicles were determined to be within specification. DCC did find that some MY2001 minivans that exhibited the PLG opening while driving condition actually had a suspect PLG module installed on the vehicle during a service repair for a different condition.**
- Q9. ODI also notes a dramatic drop off in warranty claims in the subject vehicles beginning in MY 2004. Provide DCC's assessment and analysis as to the reasons for such a decline in warranty claims.**
- A9. It is impossible to determine what any particular warranty repair is for. As for the "dramatic drop off" in warranty claims in the subject vehicles beginning in MY2004 that model year was limited to only a five month production cycle due to**

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ATTACHMENT

the early MY2005 launch in January, 2004. With this reduction in the volume due to the shortened production cycle, the warranty claims were also reduced.

During the model years 2001-2003, DCC implemented product improvements to address customer nuisance issues. As stated previously, during the 2001-2003 model years, DCC received a significant number of customer complaints of the PLG opening while stationary. A large quantity of these warranty claims can be attributed to inadvertent key fob activations when the key fob is placed in the pocket or purse of the customer. In MY2004 the RKE (Remote Keyless Entry) software was modified to require the operator to press the PLG or the Power Sliding Door (PSD) buttons twice to open/close the PLG or the PSD. This modification reduced the number of MY2004 warranty claims. Also, in the MY2001, a large quantity of warranty claims were found to be attributed to liftgate or latch switch operation, PLG not opening or closing correctly due to obstacle detection sensitivity, latch motor shorted and liftgate not opening with key fob. In MY2002 and MY2003 the warranty claims were reduced dramatically because of changes throughout the PLG system. DCC has issued multiple Technical Service Bulletins to address these customer nuisance conditions that are not related to this inquiry but result in replacement/warranty of the subject components. In December, 2000, DCC released TSB #23-035-00 Revision B, which addressed customer complaints relating to the power mode closes the liftgate but does not open the liftgate. In January, 2003, DCC released TSB #23-004-03, which addressed the power sliding door and/or power liftgate will pop off but not power open. The documents are provided in Enclosure 4 - SERVICE BULLETINS. DCC has therefore concluded that the warranty cannot be used to determine any trend related to the alleged condition.