

DAIMLERCHRYSLER

June 22, 2004

Mr. Jeff Quandt
Office of Defects Investigation, Director
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

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

Dear Mr. Quandt:

Reference: NVS-213phk; PE04-039

This document contains DaimlerChrysler Corporation's ("DCC") response to the referenced inquiry regarding 2003-2004 model year Heavy Duty Ram Pickup Trucks. By providing the information contained herein, DCC is not waiving its claim to attorney work product and attorney-client privileged communications.

Based on thorough inspections and evaluations of complaint vehicles and bench evaluation of the entire "Park" engagement system, DCC has found no evidence to suggest a defect in the subject vehicle population. DCC believes that the universal causal or contributory factor of unintended vehicle movement in the subject vehicles is the driver's decision to exit the vehicle with the engine running and without trying to remove the key (which ensures the vehicle is in park) or setting the parking brake. DCC is unaware of any vehicle design from any manufacturer that is not theoretically susceptible to unintended vehicle motion under these circumstances.

Indeed, the Agency has acknowledged the interaction between the driver and the vehicle is the critical factor in events like those at issue here, and that such events do not involve any "defect" in the vehicle itself:

Proper and complete shifting of the automatic transmission into Park is an oft-repeated, but critical task associated with safe motor vehicle operation. All automatic transmissions with mechanical park lock engagement can be improperly or incompletely shifted to that position. Because it was recognized that proper driver input is necessary to engage the park lock system, the lack of this input was considered to represent a potential contributing factor in incidents upon which this investigation was based.

This very possibility has led almost every state to pass laws aimed at encouraging driver behavior that, combined with cues designed into vehicles, eliminates the potential for the kind of inadvertent motion at issue. Thirty-eight states have passed laws requiring drivers to turn the engine off before exiting the vehicle. Twenty-eight states

require that the key be removed before the driver exits the vehicle. And 42 states require that the parking brake be engaged before the driver exits the vehicle. Significantly, consistent with NHTSA regulations, every vehicle is designed with a key interlock system that will not allow the driver to remove the key unless the vehicle is in the "Park" position.

DCC investigates allegations of inadvertent movement at the time of complaint. All of the information provided from these inspections has shown that in each of these cases the vehicle operated as designed. In all cases, it was verified that: (i) the shift mechanism functioned properly; (ii) the transmission park lock would hold the vehicle on an incline and (iii) the key could not be removed unless the shifter was in gated "Park". In addition, DCC has repurchased two (2) of the subject complaint vehicles for analysis. Both of these vehicles operate as designed. These vehicles were also reviewed by NHTSA's ODI and VRTC staff during a recent visit to our offices.

Inadvertent motion can be avoided by responding to any of the clear and present cues designed into the vehicle to ensure that the vehicle is properly placed in the "Park" position. These include: the end of travel slam of the gear shift lever; the forward movement and tactile feedback of the gear shift lever as the "Park" gate is achieved; and the visual electronic gear indicator (PRNDL) located in the cluster in plain view to the operator. In addition, the subject vehicles are designed with an intentional bias so that the electronic gear indicator (PRNDL) will continue to display "R" during rotation from Reverse to Park and the park pawl will engage the output shaft preventing the vehicle from moving prior to the shift lever reaching gated "Park". Moreover, the reverse lights will remain illuminated as long as the gear indicator displays "R". Only when the present and unambiguous cues that the vehicle has been properly placed in "Park" are ignored is there any potential risk to motor vehicle safety.

In summary, based on the thorough analysis contained within this response, DCC has found no evidence to suggest a defect in the subject vehicle population.

Sincerely,



Stephan U. Speth

Attachments and Enclosures (a/s)

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1. **State, by model, engine, transmission, model year, and assembly plant, the number of subject and comparison vehicles DaimlerChrysler has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by DaimlerChrysler, state the following:**
 - a. **Vehicle identification number (VIN);**
 - b. **Make;**
 - c. **Model;**
 - d. **Engine;**
 - e. **Transmission;**
 - f. **Model Year;**
 - g. **Assembly plant;**
 - h. **Date of manufacture;**
 - i. **Date warranty coverage commenced; and**
 - j. **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." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

- A1. **The chart below lists the production volumes for 2003-2004 model year Dodge Ram 2500 and 3500 vehicles manufactured for sale or lease in the United States through May 10, 2004 equipped with automatic transmissions.**

Vehicle Volume	183,058

The detailed response that lists the United States market production data as requested in Items a. through j. for the subject and comparison vehicles is provided in Enclosure 1 as a Microsoft Access 2000 table, titled "PRODUCTION DATA."

2. **State, by model, engine, transmission, model year, and assembly plant, the number of each of the following, received by DaimlerChrysler, or of which DaimlerChrysler is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and comparison 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**

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- possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
 - e. Third-party arbitration proceedings where DaimlerChrysler is or was a party to the arbitration; and
 - f. Lawsuits, both pending and closed, in which DaimlerChrysler 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 "e" through "f," provide a summary description of the alleged problem and causal and contributing factors and DaimlerChrysler'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.

DaimlerChrysler Corporation ("DCC") has searched its Customer Assistance System for summarized records of customer communications, referred to as Customer Assistance Inquiry Records (CAIRs), that may be reasonably related to this investigation. It should be noted that CAIRs stored in the Customer Assistance System are coded and categorized based upon the customer's stated reason for contacting the company, as understood by the individual receiving the contact, and do not necessarily reflect any technical analysis or the company's assessment of the reported assertion.

Following is a brief description of the methodology used to perform a search for CAIRs that could potentially relate to this investigation. First, DCC identified the keywords and categories within the CAIR system that could potentially relate to this investigation. Per discussion with Peter Kvett, ODI investigator, it was agreed that DCC's submission would be responsive to allegations which specify incidents with the key in the Ignition and the engine running, as the Preliminary Evaluation cover letter defines. Specifically, DCC searched for all complaints relating to the following: Any complaint combining the terms "park", "reverse", or "gear", combined with any of the terms "roll", "slip", "into", "in to", "outof", "out of", "jump", "backward", or "backward", in addition to any other transmission complaints. A word search was then conducted of complaints found within these categories. The word search also picks up associated words, such as "parked" and "parking." CAIRs relating to

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vehicles with manual transmissions were then eliminated. DCC read through the remaining complaints a number of times to identify consistently the CAIRs that might reasonably relate to this investigation.

- a. From the subject population of 183,058 vehicles, there are a total of 31 consumer complaints which may relate to this investigation. Of these complaints, 26 have been investigated by an independent third-party investigator and are noted by the descriptor "SI-CAIR" (Special Investigation - Customer Assistance Information Report). The remaining 4 are designated "CAIR" (Customer Assistance Information Report).

Following is a summary of the 31 responsive complaints:

- Where possible, DCC investigates allegations of inadvertent vehicle motion at the time of the complaint. Detailed vehicle inspections were conducted with regard to 26 of the original 31 complaints. In 100% of the inspections, the shift mechanism functioned properly; the electronic gear indicator (PRNDL) specified the appropriate gear, the transmission park lock would hold the vehicle on an incline and the key interlock functioned properly to prevent key removal unless the vehicle was engaged in the "Park" position. In each of these investigations, the inspector was unable to recreate the customer allegation of inadvertent rollaway while in the "Park" position. Aside from several shift cable adjustments completed by dealers to alleviate individual customer's concerns, all vehicles inspected functioned properly and as designed.
- Of the 26 reports inspected by an independent third-party investigator, all vehicles inspected functioned properly and as designed.
- Several of the reports indicate the owner/driver had allegations of inadvertent rearward movement prior to the reported incident, and had not altered their behavior as a result.

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ATTACHMENT**Subject Vehicle Population: 183,058**

Category Description	CAIR	SI - CAIR	Field Reports	Claims / Lawsuits	VOQs	Total
Responsive reports	5	26	1	23	7 ¹	31
Unique VINs	4	26	0	0	4	34
Total Reports	31					

1) 3 VOQs are identified in customer complaint data, therefore are not counted in total count

- b. There was one field report relevant to this investigation.
 - c. The 26 "SI-CAIR" reports include incidents where a vehicle crash was alleged. There are 3 reports alleging personal injury and no reports alleging fatality.
 - d. 5 of these reports claim property damage.
 - e. There are no third party arbitration proceedings.
 - f. There are 23 legal claims and lawsuits that may be responsive to this inquiry. It is DCC's opinion at this time that these claims and lawsuits are unrelated to any manufacturing or design issue with the subject components in the subject vehicles. A summary of these claims and lawsuits is provided in Enclosure 4.
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. DaimlerChrysler'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, engine, transmission, model year, and assembly plant;
 - 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.

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Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

- A3. The detailed response that lists the customer complaints and field reports, from Question No. 2, as requested in Items a. through l. is provided in Enclosure 2 as 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 DaimlerChrysler used for organizing the documents.**
- A4. Copies of all documents within the scope of Question No. 2 are provided in Enclosure 4 – CUSTOMER COMPLAINTS, FIELD REPORTS, LEGAL CLAIMS and LAWSUITS.**
- 5. State, by model, engine, transmission, model year, and assembly plant, total counts for all of the following categories of claims, collectively, that have been paid by DaimlerChrysler to date that relate to, or may relate to, the alleged defect in the subject and comparison 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. DaimlerChrysler'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, if any, by dealer/technician relating to claim and/or repair.**

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Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

- A5. There are four applicable labor operation codes that apply to the subject components for the subject vehicles. The claims by vehicle count for the 2003-2004 model year Dodge Ram 2500 and 3500 pickup trucks are shown in the chart below:

Ram 2500/3500	905	141	1046
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The total number of warranty claims can be broken down by failure codes in order to make estimates about the number of warranty claims potentially related to the alleged complaints. The failure code breakdown for the above vehicle population is shown in the chart below and represents a grand total of 1073 claims:

06605801	1	1	17	8	1						17	63	16	7			8	142
19208901	8		3	13		13	4	28	12					2	3			82
21782733			33	130	1	1	1	34	678					32	30	3		844
21783091			2					2									1	5

It should be noted that a multitude of conditions not related to this inquiry may result in replacement of the various subject components.

The detailed response that lists the warranty claims as requested in items a. through k. is provided in Enclosure 5 as a Microsoft Access 2000 table, titled "WARRANTY DATA".

6. Describe in detail the search criteria used by DaimlerChrysler 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 and comparison vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by DaimlerChrysler on the subject and comparison 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 DaimlerChrysler offered for the subject and comparison vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

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- A6. DaimlerChrysler has provided the requested warranty information in Enclosure 6. The labor operations and failure codes are provided in the following chart. All warranty claims were provided for vehicles serviced through May 10, 2004. The components specified in the warranty information have been identified as those that have an integral function in the automatic transmission shift mechanism. The subject vehicles (heavy duty 2003-2004 Ram) and the two reference vehicle populations (light duty 2003-2004 Ram and heavy duty 2001-2002 Ram) have been provided separately. The warranty coverage for the transmission shift components is the basic 7 year/70,000 mile policy for the 2003-2004 Dodge Ram pickup trucks and 3 year/36,000 mile for the 2001-2002 Dodge Ram pickup trucks. There were 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.

Model	Year	LCP	Description	Failure Codes
RAM	2001-2002	18208301	shifter column assembly	08,0E,1M,06,07,11,3R,51,84
		21751631	gearsift linkage grammet	11,51
		21752631	gearsift control rod	5,11,51,5E
		21754031	gearsift control torque shaft	5,7,11,51,5E
		21754131	gearsift control torque shaft bushing	7,11,27,5E
		21755031	manual control lever	5,10,74
		08806701	neutral safety switch	14,43,71,ML,5E
DR	2003-2004	18208301	shifter column assembly	08,0E,1M,06,07,11,3R,51,84
		21752738	gearsift control cable	5,7,50,51,ML,5E
		21753031	manual control lever	5,10,74
		08806801	trans range switch	14,18,43,51,5E,5E

Failure Code	Description	Failure Codes
08	shifter assembly defect	08
5E	shortage part	5E
1M	SE mechanism defect	1M
ML	check engine/service engine soon	ML
3R	high/low operating effort	3R
FC	fastener broken/cracked	FC
FG	fastener loose/improperly installed	FG
NA	casette self reverse	NA
UC	uncodeable	UC
UR	containment repair	UR
8	bent	8
7	binds, sticks, or seized	7
11	broken or cracked	11
14	burned or burned out	14
18	circuit open	18
48	grounded or shorted	48
50	improper adjustment	50
51	improperly installed	51
54	improperly installed	54
54	misaligned or mismatched	54
74	bolts-tight, loose,missing	74
83	connection loose	83

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DaimlerChrysler's assessment of the warranty information concludes that there is no indication of any field warranty issue that may contribute to the improper operation of the automatic transmission shift system.

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 DaimlerChrysler 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 DaimlerChrysler is planning to issue within the next 120 days.

- A7. There have been no service, warranty, or other documents issued by DCC which may be responsive to this request.

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, DaimlerChrysler. For each such action, provide the following information:
- Action title or identifier;
 - The actual or planned start date; The actual or expected end date;
 - Brief summary of the subject and objective of the action;
 - Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
 - 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.

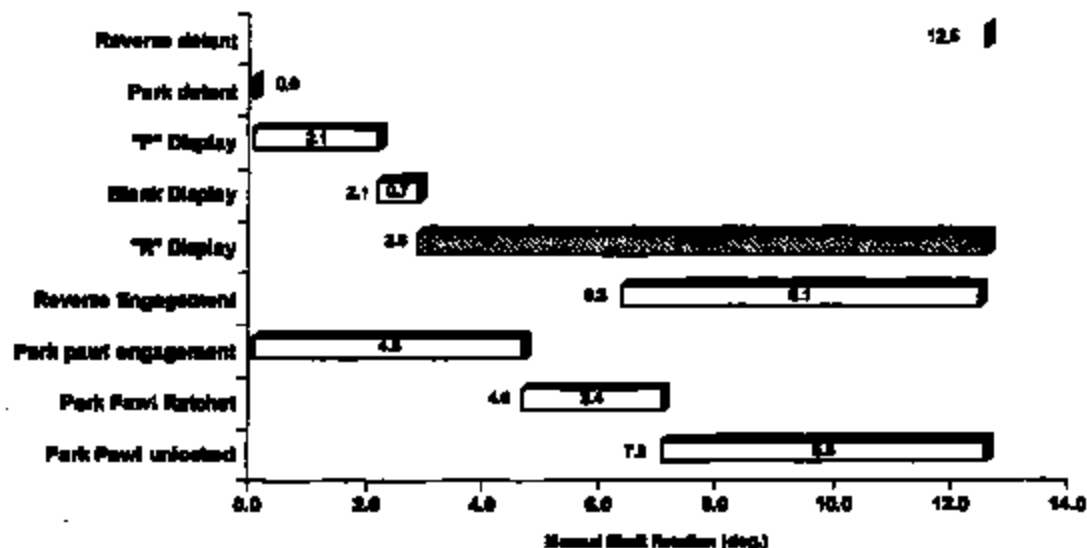
- A8. DCC's Transmission Engineering Laboratory performed two evaluations using a production 48RE automatic transmission in June, 2004 which is responsive to this request.

The chart below summarizes the manual shaft rotation, which drives the transmission gear selection, and is shown in sequence to the transmission gear selection as well as the position indicated by the electronic gear position indicator (PRNDL).

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48RE Reverse-to-Park Shift Sequence Study



This evaluation clearly indicates that when shifting from "Reverse" to "Park", the "R" display on the "PRNDL" is illuminated for 3.5 degrees of shaft rotation beyond the point where engagement of reverse is no longer present.

Additionally, full engagement of the park pawl overlaps the illumination of "R" on the electronic gear position indicator (PRNDL) by nearly 2 degrees, which indicates that the transmission park pawl is always engaged once "Park" is indicated on the "PRNDL".

This data is also consistent with operation in the vehicle ensuring that clear and unambiguous information relative to transmission gear position is always provided to the driver.

9. Describe all modifications or changes made by, or on behalf of, DaimlerChrysler in the design, material composition, manufacture, quality control, supply, or installation of the subject system/component, 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;

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- 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 DaimlerChrysler is aware of which may be incorporated into vehicle production within the next 120 days.

- A9. A chart detailing all modifications or changes made by or on behalf of DCC in the manufacture, design, or material composition of the subject components as requested in items a. through h. is provided in Enclosure 9.

10. Provide a detailed description of the transmission shift assembly operation in the subject vehicles, including all tactile, visual, and other indications to the operator that the transmission has been successfully shifted into PARK. Provide a detailed description of the subject system response if the shifter is not successfully shifted into PARK gear. For the latter, include in your descriptions the nominal and minimum time intervals between the shift attempt and system response. For both descriptions, include a discussion of the performance through the full range (nominal and each extreme) of all adjustable system components (e.g., shift cable). State DCC's assessment of the range of adjustment in which the system will perform properly. Please include in your response system drawings, diagrams, and photographs where appropriate and include video taped demonstrations of showing the shift sequence and the relationship over a time scale between shifter position, PARK indication, reverse lights, and the transmission PARK pawl engagement (show this for proper system adjustment and for mis-adjusted systems).

- A10. The subject vehicles are equipped with a column-mounted shift lever and mechanism that is linked to the outer manual lever on the transmission via a shift cable, which is equipped with a solenoid brake-shift interlock. The rotation of the outer manual lever is transferred to the inner manual lever through a shaft.

The shifter incorporates a stepped gate, is designed in accord with and certified to the requirements of FMVSS 102, and follows the industry recommended practices set forth in SAE J915. The stepped gate provides tactile feedback of

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the desired transmission gear position because the shift lever must be raised in a direction parallel to the axis of the steering column in order to engage gear positions. Neutral and drive positions are on the same plane; the shift lever must be raised to obtain either the reverse (in a counter clockwise direction) or lower forward gears (in a clockwise direction). In shifting from "Reverse" to "Park", a further rise of the shift lever is required, and park is a latched position.

These vehicles are equipped with an electronic gear position Indicator (PRNDL) that is actuated by a switch that follows the cammed surface of the rigid inner manual lever, which accurately and precisely indicates the position of the inner manual lever (i.e. the transmission gear position) at all times. The gear selection mechanism within the transmission (i.e. the hydraulic manual valve) is controlled by the rotation of the inner manual lever. The precise location of the inner manual lever for each gear position is defined by the interaction of the detents on the inner manual lever with a spring-loaded ball follower. The rotation of the inner manual lever also actuates the park apply rod so that in the park position, the park pawl mechanically locks the transmission output shaft, preventing it from turning.

The only system adjustment is with the shift cable. The electronic gear indicator (PRNDL) shows the exact location of the transmission gear position and is independent of the cable adjustment. Further, the adjustment of the shift cable is bounded by the operation of the neutral-start switch function and the key interlock function. Any adjustment beyond finite tuning will result in an inability to remove the key when the vehicle is in gated "Park", an inability to start the vehicle, or an inability to achieve the low gear range of the transmission.

After assembly in the vehicle, the interaction of the transmission and shifter system is subject to a full 100% verification in the plant, which is then repeated for a second full 100% verification in the plant. This series of tests, conducted first automatically and then additionally manually, validates that all the systems function properly in each new vehicle. This test series necessarily includes a check of the integrity of the shift system, in which the operator shifts from "Park" to low gear and back to park and records any difficulties with shifting. This verifies alignment of the interior shift column with the transmission shift lever. This series of tests effectively evaluate the shift mechanism, since it includes a validation of the gear position indication switch and key interlock systems, and also ensures proper operation of the key interlock system to prevent key removal except when the vehicle is properly and completely engaged in the "Park" position. This double inspection is conducted on every vehicle.

While there are a small number of claims for transmission shift cable adjustment, potentially suggesting a relationship to the alleged defect, DCC through its investigation of such allegations has found no evidence to substantiate these

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claims. In fact, as described in A2, 100% of the vehicles inspected for such allegation have been found to function as designed.

As NHTSA is well aware, the best method for ensuring the proper engagement of "Park" is to shut off the vehicle and remove the key. However, the subject vehicles also contain a number of other substantial cues to ensure the proper placement of the gear lever which in turn ensures the achievement of gated "Park", including the end of travel slam, forward movement and tactile feedback of the gear shift lever as the latched "Park" gate is achieved; and the visual electronic gear indicator (PRNDL) located in the cluster in plain view to the operator. Each of these cues informs the driver that the vehicle is either in park or in reverse. In addition, the subject vehicles are designed with an intentional bias so that the electronic gear indicator (PRNDL) will continue to display "R" during rotation from "Reverse" to "Park" and the park pawl will engage the output shaft and prevent the vehicle from moving prior to the shift lever reaching gated "Park". Moreover, the reverse lights will remain illuminated as long as the gear indicator displays "R".

There is no single "system response" to the hypothetical scenario described in this question that would pertain across the board to every vehicle and every possible environmental factor. The question also appears to assume that there is a relationship between hydraulic reverse engagement and vehicle movement, which is in reality largely dependent on environmental factors such as grade, terrain and vehicle payload. Further, the question appears to assume that drivers might leave the gear selector between park and reverse and that such placement would affect the vehicle operation. DCC's experience with these transmissions and shift controls is evidence of long standing successful and proper use of the gear shift mechanism. We believe that any claim that a driver thought the vehicle was in park when it was in fact in reverse is the result of the driver actually (if unintentionally) placing the vehicle in reverse, rather than park, and the failure of the driver to respond to the substantial vehicle cues that ensure proper gear selector placement. In other words, DCC strongly believes that all of the reported incidents involve the interaction between the driver and the vehicle as a critical factor in the event, and do not involve any "defect" in the vehicle itself. DCC is unaware of any vehicle design that is not theoretically susceptible to unintended vehicle motion when a driver leaves the vehicle's engine running, ignores all of the provided cues of transmission gear position, fails to set the parking brake, and nevertheless exits the vehicle.

The Agency's regulations historically and currently recognize the potential for shift error. No vehicle system can fully eliminate this potential. To help respond to these inevitable errors, the Agency has instituted a common PRNDL sequence, as well as mandating the key interlock system to ensure that drivers must place the transmission gear selector lever in park before removing their

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keys. DCC notes additionally that 42 states require the park brake to be applied, 38 require the engine to be off, and 29 require the key to be removed whenever a driver leaves a vehicle unattended. It is not possible for DCC to control the behavior of drivers who fail to exercise a reasonable level of care when operating a motor vehicle.

As requested, a multi-window video showing the relationship of all the transmission shift controls for the subject vehicles was created and several shift sequences have been summarized as requested and submitted in Enclosure 10-confidential (CD-Rom) to Ms. Jacqueline Glassman, Office of the Chief Counsel, under separate cover with a request for confidential treatment of information.

- 11. State the number of each of the following that DaimlerChrysler has sold that may be used in the subject vehicles by subcomponent 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 (including the cut-off date for sales, if applicable):**
- a. Shift assembly; and
 - b. Any kits that have been released, or developed, by DaimlerChrysler for use in service repairs to the subject system/component.

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

- A11. The service part demand for the components identified is provided in Enclosure 11 (CD-Rom). It is important to note that the part demand information includes both heavy duty and light duty pickup truck service part demand. The information consists of part number supersedence, part usability, and monthly part demand for the following part description:**
- a. Steering column assembly
 - b. Manual control lever
 - c. Gearshift control cable
 - d. Transmission range switch (gear position indicator)

The following chart identifies the part description and part number for the primary service parts (without supersedence).

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Model	Year	Description	Part Number Service (primary)
DR Heavy Duty & Light Duty	2003-2004	steering column assembly	2003 05057123AC
			05057125AC
			2004 05057397AD
			05057398AD
			gearshift control cable 52107848AF
			manual control lever 52107878AB
trans range switch 56045489AC			

It must be emphasized that DCC's part demand information does not specify the specific reason that gearshift control components are typically sold. The supplier information is provided in the chart below. All of the service parts described in the service part demand are unique to the Dodge Ram pickup truck and are not used in any other vehicle application.

gearshift control cable	steering column	manual control lever	trans range switch
Telsco Inc. 700 Stephenson Highway Troy, MI 48063 Ed Koontz (product manager) (248) 818-3183	DaimlerChrysler Toledo Maching Plant 8000 Chrysler Drive Perrysburg, Ohio 43061 Karen Bellark (quality manager) (419) 651-3285	VSA, LLC 1351 Stuebberg Richman, Ontario N2R1B2 Peggy Verbeke (sales manager) (519) 885-0820	TRW Automotive Inc. 23888 Research Drive Farmington Hills, MI 48335 Mark Orlovski (sup manager) (248)442-8414

12. Furnish DaimlerChrysler's assessment of the alleged defect in the subject vehicle, including:
- The causal or contributory factor(s);
 - The failure mechanism(s);
 - The failure mode(s);
 - The potential contribution of vehicle assembly factors, including a comparison and assessment of differences between assembly plants;
 - The risk to motor vehicle safety that it poses;
 - 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
 - The reports included with this inquiry.

A12a. DCC believes that the universal "causal or contributory factor" of unintended vehicle movement in the subject vehicles is the driver's decision to exit the vehicle with the engine running and without trying to remove the key (which ensures the vehicle is in park) or setting the parking brake. DCC is unaware of

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any vehicle design from any manufacturer that is not theoretically susceptible to unintended vehicle motion under these circumstances. Other, and perhaps more significant, "causal or contributory factors" are the failure of the driver to respond to the numerous cues that are provided by the vehicle about proper transmission shift lever position, including the end of travel slam; the forward movement and tactile feedback of the gear shift lever as the "Park" gate is achieved; and the visual electronic gear indicator (PRNDL) located in the cluster in plain view to the operator. Based on thorough inspections and evaluations of complaint vehicles and bench evaluation of the entire "Park" engagement system, DCC has found no evidence to suggest a defect in the subject vehicle population. DCC believes that the reported incidents involve the interaction between the driver and the vehicle as a critical factor in the event, and do not involve any issue with the vehicle itself. In fact, the Agency's regulations historically and currently recognize the potential for shift error. No vehicle system can fully eliminate this potential. To help respond to these inevitable errors, the Agency has instituted a common PRNDL sequence, as well as mandating the key interlock system to ensure that drivers must place the transmission gear selector lever in park before removing their keys. In addition, the subject vehicles are designed with an intentional bias so that the electronic gear indicator (PRNDL) will continue to display 'R' during rotation from "Reverse" to "Park" and the park pawl will engage the output shaft and prevent the vehicle from moving prior to the shift lever reaching gated "Park". Moreover, the reverse lights will remain illuminated as long as the gear indicator displays "R".

A12b. DCC does not consider reports of inadvertent vehicle movement in the subject vehicles to exhibit a "failure mechanism" as that term is ordinarily used by NHTSA in the Vehicle Safety Act context, because the vehicle has not "failed" to operate as intended by its design.

A12c. See A12b.

A12d. DCC has identified no vehicle assembly factors that have any relationship to the allegations. The overwhelming majority of the subject vehicles are all built at the same assembly plant in Saltillo, Mexico

A12e. If the transmission shift lever is fully engaged in the "Park" position, which means that the shifter is in the park gate and the park pawl is engaged in the transmission, there is no risk to motor vehicle safety, because the vehicle will not move inadvertently under these circumstances. When the operator takes the additional precautions of shutting off the engine, removing the key and engaging the parking brake before exiting the vehicle, motor vehicle safety is further assured. Only when the present and unambiguous cues that the vehicle has

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been properly placed in 'Park' are ignored is there any potential risk to motor vehicle safety.

- A12f.** DCC has not identified any vehicle or component malfunction related to the alleged defect, and therefore cannot comment on any associated warning.

Relative to the alleged inadvertent vehicle movement, the owner's manuals for the subject vehicles provide clear and concise instructions to ensure the vehicle is properly placed in "Park" and contain explicit warnings of what may occur if these instructions are ignored. In addition, the electronic gear indicator (PRNDL) indicator will always display the correct gear, informing the operator of the state of the transmission. Further if the vehicle is left in reverse, the reverse lamps will be illuminated.

Excerpts from the Owner's Manual are included in Enclosure 12 which provide DCC's recommendations relating to avoiding prolonged engine idling and the warning associated with potentially using the "Park" position as a substitute for applying the vehicle parking brake.

- A12g.** DCC believes that the reports contained within this response are random and isolated events that describe the unfortunate behavior of a few operators of the subject vehicles. There is nothing within the contained reports to suggest any defect whatsoever within the subject vehicles. These vehicles meet or exceed all federal standards and industry practices related to transmission control design, and employ multiple, clear and precise cues to ensure the operator that the vehicle has been safely placed in "Park". In addition, operators can further ensure their safety by turning the vehicle off, setting the park brake and removing the key before attempting to exit the vehicle, which if done, would have eliminated all of these incidences. The overwhelming majority of owners operate these vehicles safely every day.