



Kia America, Inc.
Corporate Headquarters
111 Peters Canyon Road, Irvine, CA 92606-1790 USA

VIA ELECTRONIC SUBMISSION

November 21, 2023

Peter Kivett, Chief VDD-C
Office of Defects Investigation
U.S. Department of Transportation
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E.
Washington D.C. 20590

Re: **Recall Query (RQ23-005);**
Unintended Vehicle Movement While In Park
(MY) 2015-2019 Kia Soul EV

Dear Mr. Kivett:

This letter is submitted in response to your letter received by Kia America, Inc. (“Kia”) on September 20, 2023 (Reference NEF-103jmt/RQ23-005). That letter requested information regarding allegations of unintended vehicle movement while in Park in certain model year (MY) 2015-2019 Kia Soul EV vehicles.

REQUEST NO. 1:

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

- a. Vehicle identification number (17-character VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Subject component part number and design version installed as original equipment;
- f. Date of manufacture (MM/DD/YYYY);
- g. Whether the subject vehicle was included in subject recall, and if so, provide the remedy Date (MM/DD/YYYY)
- h. Date warranty coverage commenced (MM/DD/YYYY); and
- i. The State in the United States where the vehicle was originally sold or leased or delivered for sale or lease (postal abbreviation).

Provide the table in Microsoft Access 2010, or a compatible format, entitled “PRODUCTION

DATA.”

RESPONSE TO REQUEST NO. 1:

The total number of 2015-2019MY Soul EV vehicles produced for sale in the United States is 6,267. A list of the subject vehicles is provided in Microsoft Access and titled “PRODUCTION DATA” and is submitted contemporaneously with this response.

The source of the information submitted in response to this request is Kia America, Inc. and Kia Corporation. The information was collected as of September 29, 2023.

REQUEST NO. 2:

State the number of each of the following, received by Kia, or of which Kia is otherwise aware, which relate to, or may relate to, the alleged defects 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;
- d. Property damage claims;
- e. Third-party arbitration proceedings both pending and closed, where Kia is or was a party to the arbitration; and
- f. Lawsuits both pending and closed, in which Kia 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 Kia’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.

RESPONSE TO REQUEST NO. 2:

A chart summarizing the total of each of the items requested in 2(a) through (f) for the subject vehicles is submitted contemporaneously with this response. **TAB 1.** Kia’s assessments are included in the Request Number Two Data files submitted in response to Request No. 3.

The source of the information submitted in response to this request is Kia America, Inc. The information was collected as of September 29, 2023.

REQUEST NO. 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. Kia'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), email address and telephone number (please use distinct fields for each data type);
- d. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- e. Vehicle's 17-character VIN;
- f. Vehicle's make, model and model year (please use distinct fields for each data type);
- g. Vehicle's mileage at time of incident (numeric data type);
- h. Incident date (MM/DD/YYYY);
- i. Report or claim date (MM/DD/YYYY);
- j. Whether the driver was present when the alleged defect occurred;
- k. Whether the vehicle was powered "on" or "off" when the alleged defect occurred;
- l. Whether a crash is alleged;
- m. Whether property damage is alleged;
- n. Number of alleged injuries, if any; and
- o. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

RESPONSE TO REQUEST NO. 3:

A separate list of the responsive communications for the subject vehicles is provided under the category "REQUEST NUMBER TWO DATA" and is submitted contemporaneously with this response.

The source of the information submitted in response to this request is Kia America, Inc and Kia Corporation. This information was collected as of September 29, 2023.

REQUEST NO. 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 Kia used for organizing the documents. Describe in detail the search methods and search criteria used by Kia to identify the items in response to Request No. 2 and No. 2.

RESPONSE TO REQUEST NO. 4:

Copies of the documents responsive to Request No. 2 for the subject vehicles are organized electronically titled Consumer Complaints (CC's), Techline Reports and Field Reports.

Kia's search included all CC's, Field Reports and Techline Reports generated through September 29, 2023 using the key words: ([_roll%"] AND [["_off"] OR [["_down"] OR [["_on_its_own"] OR [["_out_of_park"] OR [["_away"] OR [["_out_of_gear"] OR [["_while_in_park"] OR [["_in_park"]; ([["_veh%"] OR [["_car"] AND [["_came_out_of_park"]); ([["_roll%"] AND [["_forward%"] OR [["_back%"]); ([["_veh%"] OR [["_car"] AND [["_roll%"]); [["_shifter"] AND [["_mov%"]; ([["_veh%"] OR [["_car"] AND [["_did_not_stay_in_gear"]]). Those cases were then reviewed for reports of unintended vehicle movement in the 2015-2016MY Soul EV vehicles following completion of recall 20V389 and for any reports of unintended vehicle movement in the 2017-2019MY Soul EV vehicles and provided in response to this request. With respect to CC reports, Kia is not always able to extract incident date information in an automated manner from the source system. To the extent the information is available, it will be included. As to lawsuits and arbitrations, Kia's search included all lawsuits and arbitrations involving an allegation of unintended vehicle movement in the 2015-2016MY Soul EV vehicles following completion of recall 20V389 and all lawsuits and arbitrations involving an allegation of unintended vehicle movement in the 2017-2019MY Soul EV vehicles of which Kia received notice of on or before September 29, 2023.

The source of the information submitted in response to this request is Kia America, Inc. and relates to the information collected as of September 23, 2023.

REQUEST NO. 5:

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Kia 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. Kia's claim number;
- b. Vehicle owner or fleet name (and fleet contact person), email address and telephone number (please use distinct fields for each data type);
- c. Vehicle owner or fleet street address, city, state (postal abbreviation), and ZIP code (please use distinct fields for each data type);
- d. 17-character VIN;
- e. Repair date (MM/DD/YYYY);
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code (please use distinct fields for each data type);

- h. Labor operation number(s);
- i. Problem code(s);
- j. Diagnostic trouble code(s);
- k. Whether the reduction gear unit and/or related components were repaired or replaced;
- l. Replacement part number(s) and description(s);
- m. Concern stated by customer;
- n. Cause as stated on the repair order;
- o. Correction as stated on the repair order; and
- p. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled “WARRANTY DATA.”

RESPONSE TO REQUEST NO. 5:

A list of the warranty claims identified as a result of the search specified in Kia’s response to Request No. 6 is provided in Microsoft Access under the category “WARRANTY DATA”. In addition, Kia is also providing a list of goodwill claims approved by Kia’s Customer Care Center under the category “WARRANTY DATA 2”.

The source of the information submitted in response to this request is Kia America, Inc and was collected as of September 29, 2023.

REQUEST NO. 6:

Describe in detail the search methods and search criteria used by Kia to identify the claims in response to Request No. 5, including the labor operations, problem codes, diagnostic trouble codes, part numbers and any other pertinent parameters used.

RESPONSE TO REQUEST NO. 6:

Kia searched for all Gear Drive Unit (GDU) repair/replacement warranty claims through September 29, 2023 applicable to the subject vehicles. Those claims were then reviewed to identify reports of unintended vehicle movement in the 2015-2016MY Soul EV vehicles following completion of recall 20V389 and for any reports of unintended vehicle movement in the 2017-2019MY Soul EV vehicles and provided in response to this request.

The source of the information submitted in response to this request is Kia America, Inc. for the information collected as of September 29, 2023.

REQUEST NO. 7:

Provide a list of all labor operations, labor operation descriptions, problem codes and problem code descriptions, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the

diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator.

RESPONSE TO REQUEST NO. 7:

The labor operation codes and labor operation descriptions have been included as part of the WARRANTY DATA submitted in response to Request No. 5.

In your letter you requested that Kia provides its “problem code” information. Kia refers to the “problem code” as the “cause code” which carries a letter “C” and reflects the technician’s evaluation of the cause of the problem. You also requested that Kia provide information regarding the “concerns stated by the customer.” These are commonly referred to as “nature codes” and carry the “N” designation. These reflect the service writer’s or technician’s understanding of the customer’s concern and are included in the claim data submitted in response to Request No. 5. A description of the problem codes used for a specific claim are also listed in the WARRANTY DATA. In addition, DTC codes are automatically transmitted to the warranty database. There are no DTCs associated with the alleged defect.

The source of the information submitted in response to this request is Kia America, Inc. for the information collected as of September 29, 2023.

REQUEST NO. 8:

State, by model and model year, the terms of the new vehicle warranty coverage offered by Kia 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 Kia 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.

RESPONSE TO REQUEST NO. 8:

Kia’s Warranty Consumer Information Manuals applicable to the 2015-2019MY Soul EV vehicles is submitted with this response. **TABS 2-6.**

As of the date of this response, there have been no extended warranty programs applicable to the subject vehicles.

The source of the information submitted in response to this request is Kia America, Inc. and was collected as of September 29, 2023.

REQUEST NO. 9:

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject scope vehicles, that Kia 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 Kia is planning to issue within the next 120 days.

RESPONSE TO REQUEST NO. 9:

Kia filed notice of its Voluntary Safety Recall (20V389) on July 2, 2020 involving the 2015-2016MY Soul EV vehicles. **TABS 7-11.** Kia subsequently filed notice of Voluntary Safety Recall (23V724) on October 26, 2023 involving the 2015-2019MY Soul EV vehicles. A draft version of the documents responsive to this request are attached. **TABS 12-15.**

The source of the information submitted in response to this request is Kia America, Inc. and collected as of November 14, 2023.

REQUEST NO. 10:

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, Kia. 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.

RESPONSE TO REQUEST NO. 10:

A list of the “Actions” related to unintended vehicle movement in the 2015-2016MY Soul EV vehicles following completion of recall 20V389 and for any reports of unintended vehicle movement in the 2017-2019MY Soul EV vehicles responsive to this request is being submitted. **TAB 16.**

The source of the information submitted in response to this request is Kia America, Inc. The information was collected as of October 19, 2023.

REQUEST NO. 11:

Describe all modifications or changes made by, or on behalf of, Kia in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles and MY2020-Present Soul EV vehicles (even if the newer vehicles are not sold in the U.S). For each such modification or change, provide the following information:

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

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

RESPONSE TO REQUEST NO. 11:

A list of the modifications responsive to this request is being submitted. **TAB 17.**

The source of the information submitted in response to this request is Kia Corporation. The information was collected as of October 30, 2023.

REQUEST NO. 12:

Provide responses to each item below and all related design and/or test documents:

- a. Detailed description of the design and function of the EPB capabilities, including the design parameter in terms of the minimal, nominal and maximum forces.
- b. Detailed description of the design and function of the EPB activation and release logic.
- c. DV/PV documentation relating to the durability and hold capability of the EPB in the subject vehicles.
- d. Any design changes related to the EPB from prototype to the present and their reasons.

RESPONSE TO REQUEST NO. 12:

The response to this request is being submitted. **TAB 18.**

The source of the information submitted in response to this request is Kia Corporation. The

information was collected as of October 30, 2023.

REQUEST NO. 13:

State the number of each of the following that Kia 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 (including the cut-off date for sales, if applicable):

- a. Subject component;
- b. Add any further requests or delete all, including requests for similar or substantially similar components;
- c. Any kits that have been released, or developed, by Kia 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 make, model and model year, any other vehicles of which Kia is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

RESPONSE TO REQUEST NO. 13:

A chart summarizing the requested part sales data and supplier information is being submitted.
TAB 19.

The source of the information submitted in response to this request is Kia America, Inc. and Kia Corporation. The information was collected as of September 29, 2023.

REQUEST NO. 14:

Furnish Kia'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 and the other persons both inside and outside the vehicle would have that the alleged defect was occurring, or subject component was malfunctioning; and
- f. The reports included in our first information request letter.

RESPONSE TO REQUEST NO. 14:

The 2015-2019MY Soul EV is designed to lock the transmission when the gear shift lever is shifted into the "Park" position. The gear shift lever is connected to the gear drive unit (GDU)

via a cable which actuates the parking rod. The GDU consists of the parking pawl, parking rod plunger and parking gear (i.e., parking mechanism). During normal operation when the vehicle's gear selector is moved into the "Park" position, the parking rod plunger pushes the parking pawl into the detents of the parking gear which locks the GDU output shaft. If both drive wheels have sufficient grip, the locked GDU output shaft prevents vehicle movement.

Kia began investigating unintended vehicle movement complaints in the 2015-2016MY Soul EV vehicles in April 2020 after receiving a complaint alleging that a 2016MY Soul EV, rolled backwards and hit a pole after the vehicle was shifted to "Park". During Kia's investigation, it identified 11 incidents involving the 2016MY Soul EV alleging unintended vehicle movement. In the majority of those instances (8 out of 11), the unintended vehicle movement concern could not be duplicated.

Based on warranty-returned parts analysis and Kia's understanding of how the parking mechanism functioned, it was Kia's belief that the unintended vehicle movement could only occur if the vehicle's parking mechanism had sustained some level of damage. In June 2020, Kia Corporation (formerly Kia Motors Corporation) conducted testing in an attempt to duplicate the unintended vehicle movement conditions experienced by customers in the complaints. That testing indicated that moving the gear shift lever into the "P" (Park) position prior to coming to a complete stop could damage the parking mechanism. As a result, unintended vehicle movement could occur even though the gear shift lever was in "Park" if the parking brake was not engaged.

As a precautionary measure and to mitigate the potential for unintended vehicle movement caused by the potential customer misuse, Kia decided to recall all 2015-2016MY Soul EV vehicles (Recall No. 20V389). The recall remedy updates the Electronic Control Unit software for the Electronic Parking Brake logic so that the electronic parking brake (EPB) automatically activates when gear shift lever is shifted to the "Park" position and the POWER button is turned OFF. The EPB logic was incorporated into production beginning with the 2017MY Soul EV. Kia's investigation did not identify any warnings that may precede the unintended vehicle movement.

In June 2023, Kia was contacted by ODI requesting information regarding two (2) VOQs submitted by the complainant alleging unintended vehicle movement in a 2017MY Soul EV. Kia responded to the ODI inquiry and began to investigate the complaint. In September 2023, Kia inspected the vehicle and could not duplicate the unintended vehicle movement condition. Kia reported its initial findings to ODI during its September meeting, continued to monitor the field, and engaged in several more inspections during September and October.¹ As a result of those inspections, Kia confirmed that the EPB Logic worked as designed—activating when the gear selector was moved to "Park" and the POWER was OFF. The inspections also revealed that the conditions for such intermittent unintended vehicle movement could only be duplicated if the vehicle's gear shift lever was in "Park" with the vehicle powered ON. In fact, Kia identified a

¹ On October 19, 2023, Kia presented ODI with a detailed account of its investigation efforts and the inspections conducted during this time prior. The materials presented were previously submitted to ODI on October 19, 2023.

customer complaint where the customer acknowledged a propensity for attempting to exit his vehicle while the vehicle remained powered ON.² This customer account along with Kia's investigation illuminated the possibility of the updated EPB logic being circumvented through customer error, which was not originally contemplated by Kia.

To address this concern, Kia made a decision to recall the 2015-2019MY Soul EV vehicles on October 19, 2023 to update the Electronic Control Unit software for the EPB logic (See Recall 23V724). Through this recall, all 2015-2019MY Soul EV vehicles are eligible to receive new logic so that the EPB automatically activates when the gear shift lever is in the "Park" position regardless of whether the vehicle is powered ON or OFF.

Kia's assessment of the VOQs included as part of the IR letter is submitted. **TAB 20.**

The source of the information submitted in response to this request is Kia America, Inc. and Kia Corporation.

REQUEST NO. 15:

Provide all documentation related to Kia's investigation of the subject defect which preceded the subject recall, including:

- a. A detailed list of all complaints considered during the investigation;
- b. Kia's disposition of each considered complaint;
- c. The decision-making criteria used in deciding to issue the subject recall;
- d. The decision-making criteria used in selecting the remedy for the subject recall;
- e. Kia's assessment of the effectiveness of the remedy to avoid rollaway incidents.

RESPONSE TO REQUEST NO. 15:

The response to this request is being submitted. **TAB 21.**

The source of the information submitted in response to this request is Kia America, Inc. and Kia Corporation.

² Kia contacted the customer for VOQ No. 11480710 that alleged an unintended vehicle movement event. That customer acknowledged being "notorious for getting out of the car with the car on and it starts beeping."

Peter Kivett, VDD-C, Chief
Office of Defects Investigation
November 21, 2023

If you have any questions or if you need anything further, please do not hesitate to contact me.

Sincerely,


Ju _____ ST)

J.S. (Jurassic) Park
Vice President, Chief Safety Officer