

Karma Automotive Supplemental Report to 24-0023809-31063-10

Each manufacturer shall include in each report the information specified below.

- (1) The manufacturer's name: The full corporate or individual name of the fabricating manufacturer and any brand name or trademark owner of the vehicle or item of equipment shall be spelled out, except that such abbreviations as "Co." or "Inc.", and their foreign equivalents, and the first and middle initials of individuals, may be used. In the case of a defect or noncompliance decided to exist in an imported vehicle or item of equipment, the agency designated by the fabricating manufacturer pursuant to [49 U.S.C. section 30164\(a\)](#) shall be also stated. If the fabricating manufacturer is a corporation that is controlled by another corporation that assumes responsibility for compliance with all requirements of this part the name of the controlling corporation may be used.

Karma Automotive, Inc. (formerly known as Karma Automotive, LLC).

- (2) Identification of the vehicles or items of motor vehicle equipment potentially containing the defect or noncompliance, including a description of the manufacturer's basis for its determination of the recall population and a description of how the vehicles or items of equipment to be recalled differ from similar vehicles or items of equipment that the manufacturer has not included in the recall.

- (i) In the case of passenger cars, the identification shall be by the make, line, model year, the inclusive dates (month and year) of manufacture, and any other information necessary to describe the vehicles.

Karma Revero MY 2020-2022 GT, GS-6, GTS, GS-6s, GS-6L

- (ii) In the case of vehicles other than passenger cars, the identification shall be by body style or type, inclusive dates (month and year) of manufacture and any other information necessary to describe the vehicles, such as GVWR or class for trucks, displacement (cc) for motorcycles, and number of passengers for buses.

n/a

- (iii) In the case of items of motor vehicle equipment, the identification shall be by the generic name of the component (tires, child seating systems, axles, etc.), part number (for tires, a range of tire identification numbers, as required by [49 CFR 574.5](#)), size and function if applicable, the inclusive dates (month and year) of manufacture if available, brand (or trade) name, model name, model number, as applicable, and any other information necessary to describe the items.

n/a

(iv) In the case of motor vehicles or items of motor vehicle equipment in which the component that contains the defect or noncompliance was manufactured by a different manufacturer from the reporting manufacturer, the reporting manufacturer shall identify the component and, if known, the component's country of origin (*i.e.* final place of manufacture or assembly), the manufacturer and/or assembler of the component by name, business address, and business telephone number. If the reporting manufacturer does not know the identity of the manufacturer of the component, it shall identify the entity from which it was obtained. If at the time of submission of the initial report, the reporting manufacturer does not know the country of origin of the component, the manufacturer shall ascertain the country of origin and submit a supplemental report with that information once it becomes available.

n/a

(v) In the case of items of motor vehicle equipment, the manufacturer of the equipment shall identify by name, business address, and business telephone number every manufacturer that purchases the defective or noncomplying component for use or installation in new motor vehicles or new items of motor vehicle equipment.

n/a

(3) The total number of vehicles or items of equipment potentially containing the defect or noncompliance, and where available the number of vehicles or items of equipment in each group identified pursuant to [paragraph \(c\)\(2\)](#) of this section.

269

(4) The percentage of vehicles or items of equipment specified pursuant to [paragraph \(c\)\(2\)](#) of this section estimated to actually contain the defect or noncompliance.

100%

(5) A description of the defect or noncompliance, including both a brief summary and a detailed description, with graphic aids as necessary, of the nature and physical location (if applicable) of the defect or noncompliance. In addition, the manufacturer shall identify and describe the risk to motor vehicle safety reasonably related to the defect or noncompliance consistent with its evaluation of risk required by [49 CFR 577.5\(f\)](#).

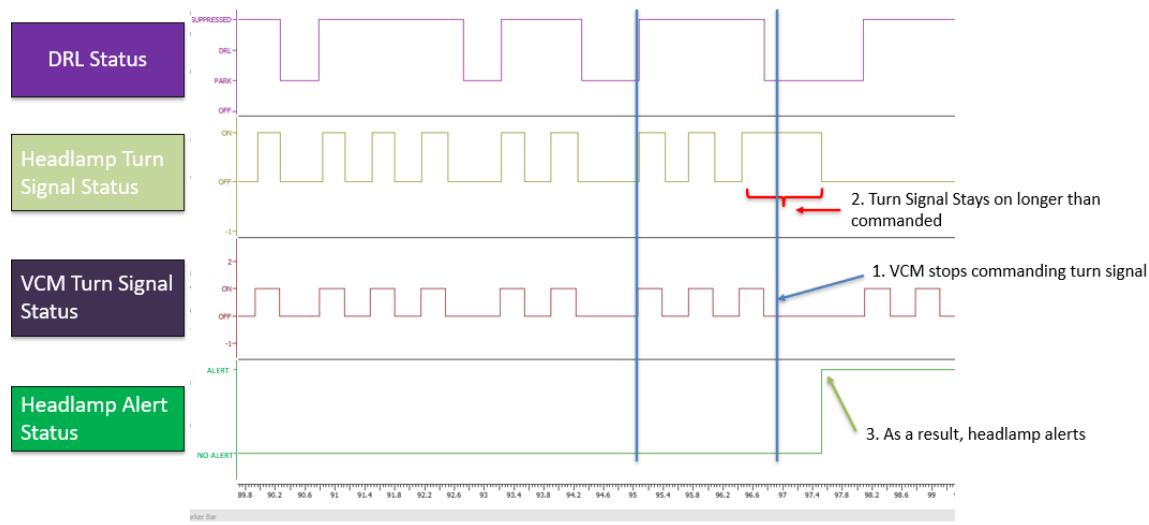
Brief Summary: The headlamp front turn signals have intermittent functionality on vehicles after use in the field. Vehicle turn signal lamp may no longer activate on command from driver due to headlamp turn signal not following VCM turn signal command. If the issue occurs, the front turn signal lamp may or may not activate during future turn signal events on the same key cycle. The front side turn signal lamp is fully functional at all times and does not display the issue. The intermittent functionality concern has only been seen at vehicle-level and has not been reproduced on the bench. Intermittent issue is sporadic in

nature and is not repeatable in a consistent manner on the same vehicle or within the same key cycle.

Detailed Description:

The headlamp turn indicator functions intermittently due to an issue detected on the turn indicator circuit. The communication error occurs because the front headlamp turn indicator signal stays active longer than it is commanded to by the Vehicle Control Module (VCM). The issue occurs intermittently, when the VCM turn signal status line is pulled low, commanding the headlamp turn signal to turn off. The headlamp's internal programming causes the delayed response to this command.

The front side indicator is fully functional at all times and does not display this issue, as it is hardwired directly to the VCM and does not receive commands via the headlight assembly.



Our estimate is that issue is occurring at an average rate of 6% per vehicle per month based on Karma's internal testing.

The driver will be notified of the issue by a steady warning telltale on the cluster and a fast-blinking indicator signal while the turn signal is active. All rear and side turn signals are fully functional, and per FMVSS 108, will flash at the fast-blinking rate. Potentially, if this warning signal is not heeded by drivers (both in the Karma vehicle and in other vehicles), a vehicle collision could occur.

There have been 13 vehicles with potential concerns brought to dealers, with 98 vehicles reporting similar concerns via Karma Cloud Services communication data. Team verifies that there has been no property damage, injury or death associated with this issue.

- (6) In the case of a defect, a chronology of all principal events that were the basis for the determination that the defect related to motor vehicle safety, including a summary of all

warranty claims, field or service reports, and other information, with their dates of receipt.

- (7) In the case of a noncompliance, the test results and other information that the manufacturer considered in determining the existence of the noncompliance. The manufacturer shall identify the date of each test and observation that indicated that a noncompliance might or did exist.
- (8)

July 15, 2021: Initial warranty claim for intermittent right front turn signal operation.

October – January 2022: Four additional warranty claims for intermittent front turn signal operation. Karma engineering team begins investigation into intermittent turn signal issue.

February – May 2022: Executed HIL testing on field returned headlamp with no issue detected as well as conducted additional investigation on vehicles in the field and within Karma's control. Karma was unable to duplicate the issue and was unable to determine root cause.

June – July 2022: Initial conversations held with JW Speaker regarding resolving the issue – JW Speaker recommended updating to v1.5 and indicated the new software version may improve the issue, however they did not describe the specific mechanism of how it would improve the issue.

October – November 2022: Karma received 6 headlamps from JW Speaker with v1.5 software. Executed HIL testing at Karma on all 6 headlamps with no issues found. Karma built 12 PV GSe-6 vehicles, using a combination of headlamps containing v1.2 or v1.5 software. During internal PV testing, test drivers reported intermittent turn indicators on 3 of the 12 vehicles. The issue is intermittent, inconsistent, and not reproducible on demand. Karma met with JW Speaker to discuss turn indicator issue. JW Speaker started an investigation into the issue. Karma Cloud Services data indicated multiple vehicles reporting intermittent active turn indicator DTC events.

December 2022: JW Speaker begins automated bench testing on v1.2 and v1.5 software, as well as test code intended to potentially resolve the issue, and were unable to duplicate the issue.

January – May 2023: Karma was advised by JW Speaker of a new software version (v1.6) that addressed the issue. Karma coordinated with JW Speaker to receive new headlamps with the updated software and commenced HIL and vehicle level testing. Intermittent turn indicator behavior was subsequently observed in vehicle level testing with v1.6. The issue is intermittent, inconsistent, and not reproducible on demand. Karma's testing confirmed that v1.6 did not fix the intermittent turn indicator issue.

June 2023: Karma was advised by JW Speaker of a new software version (v1.7) that addressed the issue. Karma received headlamps with v1.7 software and executed HIL

testing. Karma observed that all lamp communication error reporting to the VCM was disabled in v1.7, which did not meet Karma's requirements. Karma did not execute additional testing, told JW Speaker that this was unacceptable and requested that JW Speaker enable error reporting.

August – October 2023: Karma was advised by JW Speaker of a new software version (v1.8) that addressed the issue. Karma received headlamps with v1.8 software and executed HIL testing with no issues found. Karma installed these headlamps on two vehicles and began vehicle testing. The testing was conducted on two vehicles that were used by daily driver and were outfitted with data loggers, intended to capture any intermittent turn indicator issues.

October 2023 - February 2024: Ongoing monitoring of vehicle testing and observed no indicator issues on headlamps with v1.8 software. After observing no turn indicator issues on the headlamps with v1.8 software, Karma reinstalled headlamps with v1.2 software on the left side of the two vehicles and resumed vehicle testing.

November – December 2023: Company onboarded new Engineering and Legal leadership.

February 2024: New Engineering leadership initiated twice weekly quality reviews of high occurrence warranty issues. Meeting focus was to monitor company warranty data, potential solutions and testing.

April 2024: KCS communication data reports 98 vehicles in the field have reported a similar issue. Engineering and Aftersales team recommends issue be escalated for additional review. Engineering leadership reviews issue and requests additional information on proposed solution and JW Speaker testing information. Engineering leadership recommends issue be escalated to the Guardian Safety Team for further review.

May 2024: Guardian Safety Team meets and requests that the investigating team continue to gather information on frequency of occurrence, JW Speaker proposed solution, validation data and updated KCS data. Requested information was provided to Guardian Safety Team for review. After review, Guardian Safety Team determines that intermittent operation is a noncompliance with FMVSS 108 due to the communication protocol between the VCM and headlamp and should be reported to NHTSA. Team verifies that there has been no property damage, injury or death associated with this issue.

May 29, 2024: Karma submitted preliminary information to NHTSA.

(8)

(i) A description of the manufacturer's program for remedying the defect or noncompliance. This program shall include a plan for reimbursing an owner or purchaser who incurred costs to obtain a remedy for the problem addressed by the recall within a reasonable time in advance of the manufacturer's notification of owners, purchasers and dealers, in accordance with [§ 573.13 of this part](#). A manufacturer's plan may incorporate by reference a general

reimbursement plan it previously submitted to NHTSA, together with information specific to the individual recall. Information required by [§ 573.13](#) that is not in a general reimbursement plan shall be submitted in the manufacturer's report to NHTSA under this section. If a manufacturer submits one or more general reimbursement plans, the manufacturer shall update each plan every two years, in accordance with [§ 573.13](#). The manufacturer's remedy program and reimbursement plans will be available for inspection by the public at NHTSA headquarters.

New headlights with updated software will be installed at no charge to vehicle owners.

(ii) The estimated date(s) on which it will begin sending notifications to owners, and to dealers and distributors, that there is a safety-related defect or noncompliance and that a remedy without charge will be available to owners, and the estimated date(s) on which it will complete such notifications (if different from the beginning date). If a manufacturer subsequently becomes aware that either the beginning or the completion dates reported to the agency for any of the notifications will be delayed by more than two weeks, it shall promptly advise the agency of the delay and the reasons therefore, and furnish a revised estimate.

Planned Dealer Notification Date: July 24, 2024

We don't believe immediate notification is required due to a secondary method being available to all drivers – the hand signaling method in driver's test, etc

Planned Owner Notification Date: July 25, 2024

(iii) If a manufacturer intends to file a petition for an exemption from the recall requirements of the Act on the basis that a defect or noncompliance is inconsequential as it relates to motor vehicle safety, it shall notify NHTSA of that intention in its report to NHTSA of the defect or noncompliance under this section. If such a petition is filed and subsequently denied, the manufacturer shall provide the information required by [paragraph \(c\)\(8\)\(ii\)](#) of this section within five Federal government business days from the date the petition denial is published in the Federal Register.

n/a

(iv) If a manufacturer advises NHTSA that it intends to file such a petition for exemption from the notification and remedy requirements on the grounds that the defect or noncompliance is inconsequential as it relates to motor vehicle safety, and does not do so within the 30-day period established by [49 CFR 556.4\(c\)](#), the manufacturer must submit the information required by [paragraph \(c\)\(8\)\(ii\)](#) of this section no later than the end of that 30-day period.

n/a

(9) In the case of a remedy program involving the replacement of tires, the manufacturer's program for remedying the defect or noncompliance shall:

(i) Address how the manufacturer will assure that the entities replacing the tires are aware of the legal requirements related to recalls of tires established by [49 U.S.C. Chapter 301](#) and regulations thereunder. At a minimum, the manufacturer shall notify its owned stores and/or distributors, as well as all independent outlets that are authorized to replace the tires that are the subject of the recall, annually or for each individual recall that the manufacturer conducts, about the ban on the sale of new defective or noncompliant tires ([49 CFR 573.11](#)); the prohibition on the sale of new and used defective and noncompliant tires ([49 CFR 573.12](#)); and the duty to notify NHTSA of any sale of a new or used recalled tire for use on a motor vehicle ([49 CFR 573.10](#)). For tire outlets that are manufacturer-owned or otherwise subject to the control of the manufacturer, the manufacturer shall also provide directions to comply with these statutory provisions and the regulations thereunder.

n/a

(ii) Address how the manufacturer will prevent, to the extent reasonably within its control, the recalled tires from being resold for installation on a motor vehicle. At a minimum, the manufacturer shall include the following information, to be furnished to each tire outlet that it owns, or that is authorized to replace tires that are recalled, either annually or for each individual recall the manufacturer conducts:

(A) Written directions to manufacturer-owned and other manufacturer-controlled outlets to alter the recalled tires permanently so that they cannot be used on vehicles. These shall include instructions on the means to render recalled tires unsuitable for resale for installation on motor vehicles and instructions to perform the incapacitation of each recalled tire, with the exception of any tires that are returned to the manufacturer pursuant to a testing program, within 24 hours of receipt of the recalled tire at the outlet. If the manufacturer has a testing program for recalled tires, these directions shall also include criteria for selecting recalled tires for testing and instructions for labeling those tires and returning them promptly to the manufacturer for testing.

(B) Written guidance to all other outlets which are authorized to replace the recalled tires on how to alter the recalled tires promptly and permanently so that they cannot be used on vehicles.

(C) A requirement that manufacturer-owned and other manufacturer-controlled outlets report to the manufacturer, either on a monthly basis or within 30 days of the deviation, the number of recalled tires removed from vehicles by the outlet that have not been rendered unsuitable for resale for installation on a motor vehicle within the specified time frame (other than those returned for testing) and describe any such failure to act in accordance with the manufacturer's plan;

(iii) Address how the manufacturer will limit, to the extent reasonably within its control, the disposal of the recalled tires in landfills and, instead, channel them into a category of

positive reuse (shredding, crumbling, recycling, and recovery) or another alternative beneficial non-vehicular use. At a minimum, the manufacturer shall include the following information, to be furnished to each tire outlet that it owns or that is authorized to replace tires that are recalled, either annually or for each individual recall that the manufacturer conducts:

(A)

(1) Written directions that require manufacturer-owned and other manufacturer-controlled outlets either:

(i) To ship recalled tires to one or more locations designated by the manufacturer as part of the program or allow the manufacturer to collect and dispose of the recalled tires; or

(ii) To ship recalled tires to a location of their own choosing, provided that they comply with applicable state and local laws and regulations regarding disposal of tires.

(2) Under option (c)(9)(iii)(A)(1)(ii) of this section, the directions must also include further direction and guidance on how to limit the disposal of recalled tires in landfills and, instead, channel them into a category of positive reuse (shredding, crumbling, recycling, and recovery) or another alternative beneficial non-vehicular use.

(B)

(1) Written guidance that authorizes all other outlets that are authorized to replace the recalled tires either:

(i) To ship recalled tires to one or more locations designated by the manufacturer or allow the manufacturer to collect and dispose of the recalled tires; or

(ii) To ship recalled tires to a location of their own choosing, provided that they comply with applicable state and local laws and regulations regarding disposal of tires.

(2) Under option (c)(9)(iii)(B)(1)(ii) of this section, the manufacturer must also include further guidance on how to limit the disposal of recalled tires in landfills and, instead, channel them into a category of positive reuse (shredding, crumbling, recycling, and recovery) or another alternative beneficial non-vehicular use.

(C) A requirement that manufacturer-owned and other manufacturer-controlled outlets report to the manufacturer, on a monthly basis or within 30 days of the deviation, the number of recalled tires disposed of in violation of applicable state and local laws and regulations, and describe any such failure to act in accordance with the manufacturer's plan; and

(D) A description of the manufacturer's program for disposing of the recalled tires that are returned to the manufacturer or collected by the manufacturer from the retail outlets, including, at a minimum, statements that the returned tires will be disposed of in compliance with applicable state and local laws and regulations regarding disposal of tires, and will be channeled, insofar as possible, into a category of positive reuse (shredding, crumbling, recycling and recovery) or another alternative beneficial non-vehicular use, instead of being disposed of in landfills.

(iv) To the extent that the manufacturer wishes to limit the frequency of shipments of recalled tires, it must specify both a minimum time period and a minimum weight for the shipments and provide that shipments may be made at whichever minimum occurs first.

(v) Written directions required under this paragraph to be furnished to a manufacturer-owned or controlled outlet shall be sent to the person in charge of each outlet by first-class mail or by electronic means, such as FAX transmissions or e-mail, with further instructions to notify all employees of the outlet who are involved with removal, rendering unsuitable for use, or disposition of recalled tires of the applicable requirements and procedures.

(vi) Manufacturers must implement the plans for disposition of recalled tires that they file with NHTSA pursuant to this paragraph. The failure of a manufacturer to implement its plan in accordance with its terms constitutes a violation of the Safety Act.

(10) A representative copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and are sent to more than one manufacturer, distributor, dealer or purchaser. These copies shall be submitted to NHTSA's Recall Management Division (NVS-215) (RMD), not later than 5 days after they are initially sent to manufacturers, distributors, dealers, or purchasers. Submission shall be made pursuant to [§ 573.9 of this part](#).

MRP

RMD.ODI@dot.gov

(11) The manufacturer's campaign number, if not identical to the identification number assigned by NHTSA.