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**Nissan North America, Inc.**

One Nissan Way  
Franklin, TN 37067

Mailing Address:  
PO Box 685001  
Franklin, TN 37068

April 12, 2024

Eileen Sullivan  
Associate Administrator for Enforcement  
National Highway Traffic Safety Administration  
Attn: Recall Management Division (NVS-215)  
Room W48-302  
1200 New Jersey Avenue, SE  
Washington, D.C. 20590

Dear Ms. Sullivan:

We are transmitting the enclosed supplement to the Non-Compliance Information Report filed on February 14, 2024. This supplement updates section 2: Vehicles Potentially Involved, section 6: Basis for Determination of the Existence of a Noncompliance, and section 7: Description of Corrective Action.

Very truly,

A handwritten signature in black ink, appearing to read "Will Swindell".

Will Swindell  
Manager,  
Technical Compliance

Encl.

## **NONCOMPLIANCE INFORMATION REPORT**

1. Manufacturer:

Nissan North America, Inc., Smyrna plant

2. Vehicles Potentially Involved:

Certain Model Year 2018 - 2022 Nissan LEAF vehicles equipped with the subject rear view camera and manufactured from September 29, 2017 through April 21, 2022 at the Smyrna, TN plant which are equipped with a unique combination of rear view camera harness design, harness routing, rear hatch design, and manual operation of the hatch which could allow side-to-side movement of the harness terminal connector.

Model Year 2019 - 2021 Nissan Altima and Model Year 2020-2021 Nissan Sentra vehicles which are equipped with a similar camera harness design but a higher degree of runout angle in harness routing are subject to Recall 23V-628 filed on September 8, 2023.

Additional models that are equipped with a similar camera harness design but different combinations of harness routing, hatch designs, and hatch operation modes are not involved in the recall but will be monitored.

The name, description and part number of the subject component is below:

<b><u>Part Name</u></b>	<b><u>Part Description</u></b>	<b><u>Part Number(s)</u></b>
Rear View Monitor	Camera Assy - Back View	28442 5SA0A
Around View Monitor	Camera Assy - Back View	28442 5SA0B

The name and address of the Rear View Camera supplier is:

Sony Electronics  
1730 N First Street  
San Jose, CA 95112

Name, Department: Donald Miller, Sr. Department Manager, Engineering  
Phone: (408) 352-4103  
Email: Don.Miller@sony.com

3. Total Number of Vehicles Potentially Involved:

Approximately 57,914 Model Year 2018 - 2022 Nissan LEAF vehicles total.

4. Percentage of Vehicles Estimated to Actually Contain the Noncompliance:

100%

5. Description of the Noncompliance:

Due to the design of the rear view camera harness, its specific routing within the affected vehicles and rear hatch internal layout, the harness may become damaged from movement and vibrations during vehicle or manual hatch operation. Over time, damage to the harness can result in the degradation of the rear view camera display image, leading to issues such as blurriness, distortion, multi-colored imagery, or in some cases, a blank screen.

This condition may not meet the requirements of S5.5 of Federal Motor Vehicle Safety Standard (FMVSS) No. 111; Rear Visibility. If the rear view image is not available, rearward visibility may be reduced, potentially increasing the risk of a crash.

6. Basis for Determination of the Existence of a Noncompliance:

December 2021 - In follow up to the 2020 investigation of performance issues and countermeasures in certain Sentra vehicles described in 23V628, Nissan studied other models equipped with the subject rear view camera assembly. During this time, Nissan monitored warranty and field reports and identified potential intermittent camera image display concerns on certain LEAF vehicles. Nissan planned to implement harness connector countermeasures in LEAF to improve the robustness of the rear view camera harness connector by increasing the resin molding around the connector at the next model year change over in Spring 2022.

May 25, 2022 - As planned, Nissan applied the production countermeasures for the rear view harness connector design change to LEAF vehicles during the model year 2023 change over.

Summer 2022 - Nissan continued to observe post-countermeasure field warranty claims on Sentra, Altima, and LEAF vehicles related to rearview camera intermittent display issues. Nissan also received five (5) post-countermeasure VOQs for other models: 4 Sentra, 1 Altima. Nissan continued to investigate.

September 2022 through December 2022 - During the investigation, Nissan expanded its warranty parts collection and analysis to all models equipped with a similar rearview camera in U.S. market, which included the Nissan Altima (Platinum trim level), Sentra and LEAF. Eighteen (18) Nissan Sentra, Six (6) Nissan LEAF, and no Nissan Altima rear view

cameras were collected from the field and sent to the supplier for analysis. However, the supplier analysis reported no defect found in any of the collected parts.

After consulting with the supplier, Nissan decided to move forward with the adoption of new cameras on LEAF vehicles equipped with Around View Monitor (AVM) as part of a quality improvement activity while investigation continued.

January 2023 through March 2023 - Nissan conducted a horizontal confirmation activity to understand the apparent differences in rear view camera performance across global models. Several models equipped with the subject rearview camera were identified, and the investigation into these additional models began.

April 2023 - The activity revealed how the rearview camera harness in-vehicle layout, combined with opening/closing of the back door and trunk, affected the rearview camera harness connection. Nissan concluded the rearview camera harness layout within Sentra and Altima vehicles included a higher-than-average runout angle, which could make the connectors susceptible to damage from impacts or vibrations during operation. Nissan LEAF vehicles were calculated to have a significantly lower runout angle compared to Altima and Sentra vehicles.

May 2023 through July 2023 - Nissan's findings supported focusing on models with greater runout angle value. Variations in vehicle structure, specifically a rear hatchback door versus a trunk, influenced the vibration of the rear view camera harness.

August 2023 - The subject intermittent rearview camera image condition was duplicated through vibration testing under specific vehicle layout conditions. Nissan identified potential for continued harness damage resulting in copper exposure, leading to a thin oxide film affecting the video signal. Nissan concluded that the identified condition may cause the rearview camera to become intermittently inoperable.

August 31, 2023 - Based on the findings from the investigation, Nissan made a determination to conduct a recall for potential non-compliance for vehicles equipped with the subject camera harness and the specific routing conditions. Nissan determined LEAF vehicles could be excluded, as the runout angle did not fit the threshold criteria.

September 2023 through December 2023 - Recall 23V-628 was filed on September 8, 2023. Following discussions with NHTSA, Nissan expanded the focus of the study into LEAF vehicles and investigated the influence of specific vehicle layout conditions and how these affected the subject harness.

Nissan conducted a subsequent study of design data across multiple models, taking into account the layout of components around the subject harness. Nissan's analysis revealed the most critical factor influencing the runout angle is the flexibility along the Z-axis (Up/Down). Nissan identified the Nissan LEAF design may present opportunities for connector movement with vibration due to the harness placement, distances to

surrounding components, and manual hatch operation which could increase Z-axis force, potentially contributing to damage of the rear view camera harness overtime.

January 30, 2024 – Nissan reviewed its conclusions with NHTSA and subsequently decided to conduct a voluntary Safety Recall Campaign for MY18-22 Nissan LEAF vehicles equipped with the subject rearview camera assembly.

As of the date of determination, Nissan was aware of sixteen (16) Technical Reports and thirteen (13) VOQs related to affected LEAF vehicles for the subject condition of rear view camera harness damage leading to an intermittent rear view display image, and had not received any reports of accidents or injuries related to the subject condition.

7. Description of Corrective Action:

Dealers were notified on February 7, 2024. Owners of all potentially affected vehicles were notified beginning March 20, 2024 with an interim owner letter. Nissan has developed a proposed remedy, and expects to complete validation of it before Summer 2024. Owners will then be notified when remedy is available.

Nissan will include a statement in the Part 577 owner notification concerning reimbursement for the cost of obtaining a pre-notification remedy as some of the subject vehicles are no longer under warranty.

8. Copy of Notices:

Copies of all notices will be provided to NHTSA as they become available.