



Nissan North America, Inc.

One Nissan Way
Franklin, TN 37067

Mailing Address:
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Franklin, TN 37068

September 28, 2023

Dr. Cem Hatipoglu
Acting 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 Dr. Hatipoglu:

We are transmitting the enclosed Defect Information Report in accordance with 49 CFR Part 573. A voluntary recall campaign will be initiated and your office provided with the notices.

Very truly,

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

Will Swindell
Manager,
Technical Compliance

Encl.

DEFECT INFORMATION REPORT

1. Manufacturer:

Nissan Motor Co., Ltd. Tochigi Plant

2. Vehicles Potentially Involved:

Certain Model Year 2023 Nissan Ariya vehicles as shown in the table below:

<u>Model</u>	<u>Dates of Manufacture</u>	<u>Plant</u>
MY 2023 Nissan Ariya	June 17, 2022 – May 19, 2023	Tochigi

Based on Nissan production records, the issue (as described in Section 5 below) occurred on certain Model Year 2023 Ariya vehicles that were built with the subject component during the affected production period. This concern could potentially affect both 2WD and 4WD models.

Due to the unique motor type utilized on the vehicle, this issue affects only Nissan Ariya. No other Nissan or INFINITI vehicles are affected.

The name, description and part number of the subject components are below:

<u>Part Name</u>	<u>Part Description</u>	<u>Part Number</u>
Inverter – Power Electronics Box (PEB)	Inverter 2WD	291A0 5MP3G
Inverter – Power Electronics Box (PEB)	Inverter FR 4WD	291A0 5MP5G
Inverter – Power Electronics Box (PEB)	Inverter RR 4WD	291A0 5MP7G

3. Total Number of Vehicles Potentially Involved:

Approximately 9,813 MY 2023 Nissan Ariya vehicles total.

<u>Model</u>	<u>Volume of Production</u>
MY 2023 Nissan Ariya	9,813

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

Approximately 100%.

5. Description of the Defect:

On affected Ariya vehicles, there is a potential that conductive fibrous shavings from the drive motors' slip ring assembly can momentarily short circuit the two slip rings. If this occurs, the fibrous shavings are instantaneously burnt out resulting in no damage to any components. However, due to the fail-safe protocols, when the inverter detects a momentary over-current due to the short circuit, it cuts the motor torque to protect internal components of the controller, resulting in a loss of drive and "EV System Off" message displayed on the dashboard to alert the driver.

If this issue occurs, the torque to the driven wheels will be cut off until the fail-safe mode is released following a vehicle power off and restart. An unexpected loss of motive power while driving at high speed may increase the risk of a crash.

6. Chronology of Principal Events:

January 2022 – During a production trial, an Ariya vehicle's electric motor appeared to shut off immediately after the vehicle started to move at low speed. The Diagnostic Trouble Code (DTC) indicated a short circuit had occurred inside the motor, but no damage was observed to any of the motor or components. Nissan investigated the cause of the condition.

February 2022 through April 2022 – Nissan inspected other Ariya vehicle motors and inventory parts and discovered conductive fibrous shavings on the slip ring end in the motor, apparently leftover from motor manufacturing. It was determined that the shavings could cause a momentary short circuit which initiated inverter fail-safe mode. Nissan implemented visual inspection for shavings in the slip ring assembly.

Late December 2022 – Nissan received a report of an Ariya in China with motor shut off at low speed and "EV system error" message displayed, which had been produced after the April 2022 inspection countermeasure.

January 2023 through April 2023 – Nissan found that conductive fibers can be generated during usage from the slip ring in the motor. In rare cases, it may lead to the momentary short circuit between the electrodes. Because the short circuit was momentary and did not damage the internal components and the vehicle could be restarted, Nissan did not judge this condition as abnormal. However, as a precaution, Nissan implemented improved inverter fail-safe control logic into production in April 2023.

May 2023 through August 2023 – Nissan received two additional (2) foreign technical reports alleging electric motor shut off at vehicle start up or immediately upon backing out of a parking space while at low speed.

September 2023 – Nissan received a report of an incident in a foreign market, indicating that an Ariya vehicle went into fail-safe mode and shut off the electric motor while driving at a higher speed.

September 21, 2023 - Out of abundance of caution, Nissan decided to conduct a Voluntary Safety Recall to update the inverter/motor controller software to improve fail-safe protocols.

Nissan is not aware of any accident or injuries related to the subject condition.

7. Description of Corrective Action:

Dealers will be notified of the recall beginning September 29, 2023.

Beginning on October 20, 2023, owners of all potentially affected vehicles will be notified to bring their Ariya to a Nissan dealer for repair. Dealers will be instructed to reprogram the inverter to improve fail-safe protocols. All repairs will be performed free of charge for parts and labor and may take less than one (1) hour to complete.

Nissan will not include a statement in the Part 577 owner notification concerning reimbursement for the cost of obtaining a pre-notification remedy since the subject vehicles are under warranty.

8. Copy of Notices:

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