

Part 573 Safety Recall Report

23V-768

Manufacturer Name : Lonestar Specialty Vehicles**Submission Date :** FEB 22, 2024**NHTSA Recall No. :** 23V-768**Manufacturer Recall No. :** NA**Manufacturer Information :**

Manufacturer Name : Lonestar Specialty Vehicles

Address : 1902 Saint Michael Drive

Texarkana TX 75503

Company phone : 9033060801

Population :

Number of potentially involved : 13

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2023 Lonestar SV Electric S22

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : HYBRID ELECTRIC

Descriptive Information : Manufacturer has acquired or produced, and has directly or indirectly resold or sold to end-user consumers certain specialty electric tractors, which include control software within the Vehicle Control Unit (VCU) for controlling the Battery Management System (BMS) in the performance of isolation measurements of the battery packs. The BMS is intended to be configured to a default parameter of an "ON" status for operation of the vehicle and should remain in this status unless turned "OFF" by a technician for testing or maintenance. The "OFF" parameter instructs the BMS not to do a safety measurement. An "ON" parameter instructs the BMS to measure isolation values and shut down the vehicle if the isolation measurement reads below a safe threshold. It has been discovered that this parameter of the BMS was inadvertently configured to "OFF" (testing and maintenance mode) at the time of delivery for the certain limited vehicles disclosed in this notice. The setting may be reconfigured remotely over-the-air parameter instruction of the BMS software to reset this parameter to the "ON" status for operation.

Production Dates : FEB 01, 2020 - NOV 08, 2023

VIN Range 1 : Begin : 1L9LSE8A9NT660037 End : 1L9L2E8AXPT660082

 Not sequential

Description of Defect :

Description of the Defect : A combination of adjustable parameters internal to the Vehicle Control Unit (VCU) has caused the Battery Management System (BMS) in certain limited vehicles to not perform the isolation measurement of the battery packs.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : The high voltage (700V) battery packs should continuously measure their isolation values of the positive and negative terminals relative to the chassis / ground of the vehicle. This measurement is done by the BMS. If the isolation value is lower than a safe threshold (500 Ohm/V), the battery pack must open its contactor and warn the operator of the risk. A failure of the isolation of the battery pack can lead to the energizing of surrounding components. As a result of the failed isolation measurement, an operator may be unaware of a high voltage battery pack malfunction, thus increasing the risk of a fire.

Lonestar is not aware of any accidents, injuries, damages, or fires related to this condition.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Involved Components :

Component Name 1 : VCU Software

Component Description : Vehicle Control Unit Software

Component Part Number : NA

Supplier Identification :**Component Manufacturer**

Name : NR

Address : NR

Country : NR

Chronology :

During a service event on battery packs on October 19, 2023, a technician observed battery isolation values being 0 kOhms. This immediately started an investigation into the status and performance of the isolation measurement feature of the BMS. A bypass request for the isolation measurements, dating from the software development phase, was found in the VCU software, disabling the isolation measurement function in the BMS (i.e., it appeared that the BMS parameter may not have been enabled to the "ON" status). On November 17, 2023, it was concluded that the BMS parameter was not enabled to perform isolation measurements, which triggered this notice and the process of updating the software. To safely remove the bypass, LSV quickly performed tests on stand-alone battery packs and in vehicles to validate the isolation measurement function of the BMS then proceeded to remove the bypass request remotely from all trucks in the field. As of the date of this notice, all the software for all affected vehicles has been reconfigured to remove the bypass and enable isolation measurements.

Description of Remedy :

Description of Remedy Program : The bypass request has been reconfigured remotely to remove the bypass and enable isolation measurements.

As of the date of this notice, all affected vehicles have completed the remedy program at no cost to the vehicle owner.

How Remedy Component Differs from Recalled Component : No change in component itself, rather the remedy contains a reconfiguration of parameters within the component remotely

Identify How/When Recall Condition was Corrected in Production : The bypass request has been reconfigured remotely to remove the bypass and enable isolation measurements.

As of the date of this notice, all affected vehicles have completed the remedy program at no cost to the vehicle owner.

Recall Schedule :

Description of Recall Schedule : Formal customer notification will be done by regular United States mail as required. In order to facilitate immediate remote configuration customers have been

contacted by telephone prior to the date of this notice.

Planned Dealer Notification Date : DEC 01, 2023 - DEC 15, 2023

Planned Owner Notification Date : DEC 01, 2023 - DEC 15, 2023

* NR - Not Reported