

Part 573 Safety Recall Report

24V-625

Manufacturer Name : Motor Coach Industries**Submission Date :** AUG 20, 2024**NHTSA Recall No. :** 24V-625**Manufacturer Recall No. :** R23-14**Manufacturer Information :**

Manufacturer Name : Motor Coach Industries

Address : 200 East Oakton Street

Des Plaines IL 60018

Company phone : 1-800-241-2947

Population :

Number of potentially involved : 24

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2021 Motor Coach Industries D45CRTeLE

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : NR

Descriptive Information : The recall population includes all coaches manufactured with a specific charging program.

Recall affects 24 MY2021 D45CRTeLE coaches.

Production Dates : AUG 02, 2021 - JUN 06, 2022

VIN Range 1 : Begin : 1M8WDMZA7MP081109 End : 1M8WDMZA9MP081127 Not sequentialVIN Range 2 : Begin : 1M8B4WH11MP082574 End : 1M8B4WH13MP082592 Not sequential**Description of Defect :**

Description of the Defect : On certain D45CRTeLE coaches delivered to one customer, a programming anomaly would allow over-current conditions to occur repeatedly while charging.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Repeated, excessive over-current charging conditions can cause permanent damage within the battery cells. When this occurs, the damage may progress and cause short circuits between cells. Short circuits in batteries increases the risk of a vehicle fire.

Description of the Cause : NR

Identification of Any Warning that can Occur : None known.

Involved Components :

Component Name 1 : XMOD55E

Component Description : Battery module, 1/2 mod

Component Part Number : 07-09-2701

Component Name 2 : XMOD111E

Component Description : Battery module

Component Part Number : 07-09-2702

Supplier Identification :

Component Manufacturer

Name : Freudenberg Battery Power Systems

Address : 2700 S Saginaw Road
Midland Michigan 48640

Country : United States

Chronology :

- In Q3-2023, a thermal event occurred on a D45CRTeLE coach. At this time, Motor Coach Industries (MCI) began an investigation.
- An additional event occurred in Q4-2023, on another D45CRTeLE coach at the same customer location.
- Two additional D45CRTeLE coaches at the same customer location experienced thermal events in Q1 and Q2-2024. At this point, all D45CRTeLE coaches in the fleet (24 total) were removed from service.
- As the Investigation progressed, MCI engaged the battery manufacturer and a 3rd party forensics team. Available data from the coach telematics/CAN logs was reviewed during the investigation and a repeated over-current condition appeared on the coaches during charging. This over-current condition was found to be due to a software issue, which was corrected in late 2022.
- Review of the chargers used by the customer occurred in April 2024, with no anomalies noted.
- Teardown of the suspect batteries (modules) and preliminary discussions in Q2-2024 indicated permanent damage to battery cells within the modules.
- As this damage likely occurred prior to late 2022 when the repeated over-current charging condition existed, our forensics advisor and battery supplier indicated irreversible damage may have occurred to the batteries.
- June-July 2024 investigation continues with the battery supplier, and their analysis from a cell autopsy concludes with the prevailing root-cause of the events being internal damage from repeat over-current events during charging.

- The battery supplier analysis was reviewed internally by MCI Service and Engineering teams in July-August 2024. This review indicated agreement with the analysis, and as such, a determination was made to bring the results of the analysis before the MCI Safety Committee.
- MCI Safety Committee met on 14-August and concurrence was given to initiate a recall with NHTSA for the coaches.

Description of Remedy :

Description of Remedy Program : MCI will replace the batteries in all coaches at this customer location.

As MCI will be replacing the batteries free of charge, no reimbursement to the owner would be necessary.

How Remedy Component Differs from Recalled Component : The affected component was software based, which was corrected in late 2022.

Identify How/When Recall Condition was Corrected in Production : No other coaches used the software program.

Recall Schedule :

Description of Recall Schedule : Please note MCI does not utilize a Dealer Network, dates are aligned with owner notification.

Planned Dealer Notification Date : OCT 01, 2024 - OCT 01, 2024

Planned Owner Notification Date : OCT 01, 2024 - OCT 01, 2024

* NR - Not Reported