



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 11-015

Date Opened: 04/26/2011

Investigator: Peter Kivett

Approver: Frank Borris

Subject: Battery Cable Corrosion

Date Closed: 09/29/2011

Reviewer: Bruce York-B

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: WHEELED COACH INDUSTRIES

Products: 2003-2010 Wheeled Coach Crusader Ambulances

Population: 735

Problem Description: Positive accessory cables corrode and break from a secondary remote battery terminal causing arching and loss of all accessories, lights, sirens, inverter, and life support equipment.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	3	3**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	2	2

***Description of Other:** Manufacturer warranty claims

**** Count indicates duplicate reports received by ODI and manufacturer.**

ACTION / SUMMARY INFORMATION

Action: This Preliminary Evaluation is closed with Safety Recall 11V-470

Summary:

On April 4th 2011, the Office of Defects Investigation (ODI) opened Preliminary Evaluation (PE11-015) to investigate allegations of complete loss of electrical system accessories in certain Wheeled Coach ambulances. These vehicles are used in emergency response operations, and first responders are dependent on its reliability especially during life-saving situations. Allegations of electrical system failure received by ODI include, but are not limited to, lights, sirens, and life-support equipment.

The subject vehicles are equipped with a 400 amp fuse buss/relay (commonly known as a remote battery terminal) that is a central conduit for electrical power distribution to the patient cab area as well as other mission critical equipment. It was determined by the manufacturer that the failure mechanism involves the Ford O.E.M. secondary remote battery terminal. According to the manufacturer, the corrosion of the secondary remote battery terminal is due to road salt and other caustic deicing agents used as a road surface treatment in the Northeast regions. The calcium chloride in de-icing agents deteriorates the copper compounds found in the 400-amp fuse buss resulting in an electrical short circuit. This short circuit can cause failure of critical systems in the vehicle constituting a safety defect.

On September 8, 2011, Wheeled Coach Industries submitted a Part 573 defect notice indicating it would conduct a safety recall to remedy approximately 725 affected ambulances (MY 2004-2010) operating in the following states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, Missouri, and the District of Columbia.

This investigation is closed with a safety recall 11V-470.

NHTSA will continue to monitor the recalled vehicles to ensure the remedy implemented by Wheeled Coach is adequate. The agency reserves the right to take further action if warranted by the circumstances.