



14V-070
(11 pages)



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By Recall Management division at 8:01 am, Feb 11, 2014

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Flint, MI 48507
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February 11, 2014

Reporting Site: Flint, Michigan

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

Reference: NHTSA Investigation EQ 14-002

NHTSA Recall 13E-050

Part 573 Defect & Noncompliance Report

This report serves as Monroe Truck Equipment's notification to the U.S. Department of Transportation, National Highway Traffic Safety Administration that a defect related to motor vehicle safety exists in certain vehicles equipped with Sure Power power-management products. Sure Power decided that this defect existed in these vehicles on September 10, 2013.

Manufacturer, Designated Agent, & Other Chain of Distribution Information

1A. **Vehicle manufacturer's (Final Stage) & product distributor name/address:** Monroe Truck Equipment, Inc., 2400 Reo Drive, Flint, MI 48507.

Primary contact (in Monroe, WI): Gary R. Hess / 608-329-8454 / ghess@monroetruck.com.

1B. **Affected product manufacturer's name/address:** Sure Power Inc. ("Sure Power"), 10189 SW Avery St., Tualatin, OR 97062

Contact: Jess Bergers / 503-612-7535 / jessbergers@eaton.com

2. **Equipment involved in this defect notification:** The products are battery equalizers and DCDC converters manufactured between January, 2000 and August 18, 2013 containing a particular potting compound. The product is identified by the following part numbers: 12025COO, 12025COO-B, 12025EOO, 12025EOO-B, 12030C20HR, 12030C20HR-B, 12040COO, 12040COO-B, 12040EOO, 12040EOO-B, 52204, 52206, 52206fU3, 52208, 52208P, 52208FUB, 52210, 52210-20430K, 52210P, 52210RB, 52210RB-B, 52210FUB-T, 52304, 52304P, 52306, 52306fU3, 52308, 12040COJ.



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Reporting Site: Flint, Michigan

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

Reference: NHTSA Investigation EQ 14-002

NHTSA Recall 13E-050

Identification of Recall Population & Its Size

Make: General Motors

Model: C-Series

Years: 2006, 2008, 2009

Inclusive dates of manufacturer: August 2005 through March 2009

Body style/type: Cab/chassis, intermediate truck chassis

Total number of these vehicles: 9

Total number of items of equipment

A total of nine (9) affected units were purchased for resale by Monroe Truck Equipment, Inc., in Flint, Michigan and are covered by this report. These units were reported as installed in vehicles.

Approximate percentage of vehicles or equipment estimated to actually contain the defect

The actual percentage is unknown at this time. Therefore, all vehicles identified in this report will be included in the recall campaign and mailing.

How the Recall Population Was Determined

The recall population for products sold by Monroe Truck Equipment is based solely on the number of documented Sure Power products listed by Sure Power, Inc. as being affected by the defect.

How the Recall Population is Different from Similar Vehicles Not Subject to Notification

There is no difference—other vehicles are mechanically and functionally the same.

Reporting Site: Flint, Michigan

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Reference: NHTSA Investigation EQ 14-002
NHTSA Recall 13E-050

Description of the Defect or Noncompliance & Chronology of Events

Description of the defect

The specific potting compound used in the subject products for insulation was found by Sure Power, Inc. to be capable of conducting electricity once exposed to significant thermal energy. Once electrically conductive, the material is capable of self-heating and maintaining temperatures capable of accelerating a thermal incident. Thermal energy can be sourced by various electrical failures, and Sure Power, Inc. is still investigating whether there are application-specific contributions to the risk of failure. Electrical failures have been traced to water intrusion or solder joint fatigue resulting from ongoing expansion and contraction due to thermal cycling.

Safety Consequences of the Defect

Potential for fire within the vehicle confines due to thermal activity at the malfunctioning unit.

Warnings That May Precede the Defect Condition

Possible smell of burning material, electrical wiring, visible smoke in some cases.

Chronology of Events at Sure Power, Inc. Which Led to Determination of Defect

- 2000: The product is introduced to the market by Sure Power Inc.
- 2000 through 2012: Sporadic field returns with repeated thermal failure were analyzed and determined to be related to either water intrusion or customer misapplication.
- December 24, 2007: Cooper Industries acquired Sure Power Inc.
- January 2012: Sure Power received information from one bus operator in California (Bus Operator 1) regarding 3 incidents involving one model of the battery equalizer installed in transit buses owned and operated by that bus operator. None of the incidents involved an injury.
- January 2012: Sure Power conducted a site visit at the location of Bus Operator I and based upon the mounting location and maintenance procedures of the operator determined that the failure was likely due to water intrusion.
- May 2012: Sure Power received information from one bus operator in California (Bus Operator 2) regarding four incidents involving one model of the battery equalizer installed in transit buses owned and operated by that bus operator. None of the incidents involved an injury.
- May through September 2012: Sure Power investigated the four incidents from Bus Operator 2 and concluded they appeared to be a wear out mechanism related to this particular transit bus application
- November 30, 2012: Eaton acquired Cooper Industries, which included Sure Power, Inc.
- January 10, 2013: Sure Power evaluated three incidents from one bus operator in California (Bus Operator 3) which exhibited the same root cause as Bus Operator 2. None of these incidents involved an injury. Following examination of these three units an additional four functional units with similar age and use history were requested to be returned for evaluation. These four units showed varying degrees of degradation at the bus bar solder joints, none of which had progressed to a thermal incident.

Reporting Site: Flint, Michigan

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

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NHTSA Recall 13E-050

- May 29, 2013: Sure Power is notified of an April 14, 2013 incident involving a fire on a transit bus that was parked in a garage and owned by a bus operator in Pennsylvania. The incident did not involve an injury.
- July 2013 - present: Sure Power representatives have been investigating the Pennsylvania incident. The cause of this incident is still under investigation, and it is not yet determined whether this incident is related to the issue addressed by this report.
- August 1, 2013: Sure Power launched an effort to re-evaluate all past returned parts data for the subject products with specific attention given to occurrence and root cause of thermal failures.
- September 9, 2013: Sure Power decided to notify NHTSA of its decision to undertake a safety recall to replace the subject products in the aftermarket and notify its OEM customers of this decision.

Chronology of Events at Monroe Truck Equipment, Inc. Leading to Recall Action

- September 10, 2013: Monroe Truck Equipment, Inc. (Monroe, Wisconsin) received a letter from Sure Power, Inc. describing the defect and chronology of investigation events, and stating that NHTSA had been notified.
- October –December, 2013: Monroe Truck Equipment, Inc. searched records to determine location/destination of affected units sold.
- January 16, 2014: Monroe Truck Equipment, Inc. received letter from NHTSA requesting Defect Information Report.

Reporting Site: Flint, Michigan

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

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Remedy Program & Schedule for Monroe Truck Equipment, Inc.

Description of proposed remedy

- Monroe Truck Equipment, Inc. has created a letter of recall notification to begin sending to affected consumers by February 03, 2014.
- The letter of notification recommends that consumers immediately disconnect any operating unit from its power source and remove it from the vehicle as an added safety measure.
- Monroe Truck Equipment, acting as intermediary for Sure Power, Inc., will offer to replace each affected product at no charge with a new battery equalizer or DC-DC converter.
- Monroe Truck Equipment, acting as intermediary for Sure Power, Inc., will offer to reimburse any consumer who purchased a replacement product due to the self-heating condition described in the recall at their own expense on or after September 09,2012.

Program for remedy campaign

- Monroe Truck Equipment, Inc. has researched its business records and created a spreadsheet listing the last known destination for each affected product shipped.
- Monroe Truck Equipment, Inc. shall begin sending a letter of notification to each of the last known destinations for each affected product shipped. The letter includes instructions for identifying affected products and for receiving new product or reimbursement for replacement products already purchased by the consumer.
- Monroe Truck Equipment, Inc. shall process requests for new products or reimbursement as they are received from the affected consumers. Monroe Truck Equipment, Inc. shall request its own reimbursement from Sure Power, Inc. at a later date.
- Monroe Truck Equipment, Inc. will submit the required quarterly status reports to NHTSA per 49 CFR 573.7 for the units and consumers within its scope of responsibility.

Distinguishing Characteristics of the Replacement Component

- Replacement components will be distinguished by the serial number and date of manufacture on the unit label.

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1051 West 7th Street
 Monroe, WI 53566
 608-328-8127 ~ Fax: 608-328-4278

February 11, 2014

Reporting Site: Monroe, Wisconsin

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

Reference: NHTSA Investigation EQ 14-002
 NHTSA Recall 13E-050

Part 573 Defect & Noncompliance Report

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Manufacturer, Designated Agent, & Other Chain of Distribution Information

- 1A. **Vehicle manufacturer’s (Final Stage) & product distributor name/address:** Monroe Truck Equipment, Inc., 1051 W. 7th Street, Monroe, WI 53566.
 Primary contact at Monroe, WI: Gary R. Hess / 608-329-8454 / ghess@monroetruck.com.
- 1B. **Affected product manufacturer’s name/address:** Sure Power Inc. ("Sure Power"), 10189 SW Avery St., Tualatin, OR 97062
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Reporting Site: Monroe, Wisconsin

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

Reference: NHTSA Investigation EQ 14-002

NHTSA Recall 13E-050

Identification of Recall Population & Its Size

Make: General Motors

Model: 1500 pickup

Years: 2005

Inclusive dates of manufacturer: January 2005 through May 2006

Body style/type: Pickup truck, light duty

Total number of these vehicles: 3

Make: Ford

Model: F-350 pickup

Years: 2009

Inclusive dates of manufacturer: May 2009

Body style/type: Pickup truck, light duty

Total number of these vehicles: 4

Make: Ford

Model: Super Duty

Years: 2012

Inclusive dates of manufacturer: October 2011

Body style/type: Cab/chassis, intermediate truck chassis

Total number of these vehicles: 3

Make: Nissan

Model: Unknown

Years: 2010

Inclusive dates of manufacturer: September 2009

Body style/type: Cab/chassis, intermediate truck chassis

Total number of these vehicles: 1

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Reporting Site: Monroe, Wisconsin

Subject: Defect Information Report, Sure Power Equalizer/Inverter thermal hazard

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NHTSA Recall 13E-050

Total number of items of equipment

A total of thirty-two (32) affected units were purchased for resale by Monroe Truck Equipment, Inc., in Monroe, Wisconsin and are covered by this report. These units were reported installed in vehicles or were sold as aftermarket parts.

Approximate percentage of vehicles or equipment estimated to actually contain the defect

The actual percentage is unknown at this time; verbal communications with some of the listed product recipients indicates that some of the products have already been replaced for unspecified reasons. Therefore, all vehicles identified in this report will be included in the recall campaign and mailing.

How the Recall Population Was Determined

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How the Recall Population is Different from Similar Vehicles Not Subject to Notification

There is no difference—other vehicles are mechanically and functionally the same.

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