

DEFECT INFORMATION REPORT

1. Manufacturer's name/address: Sure Power Inc. ("Sure Power"), 10189 SW Avery St., Tualatin, OR 97062

2. Equipment involved in this defect notification: The products are battery equalizers and DC-DC converters manufactured between January, 2000 and August 18, 2013 containing a particular potting compound. The product is identified by the following part numbers: 12025C00, 12025C00-B, 12025E00, 12025E00-B, 12030C20HR, 12030C20HR-B, 12040C00, 12040C00-B, 12040E00, 12040E00-B, 52204, 52206, 52206RB, 52208, 52208P, 52208RB, 52210, 52210-20430K, 52210P, 52210RB, 52210RB-B, 52210RB-T, 52304, 52304P, 52306, 52306RB, 52308, 12040C01.

3. Total number of items of equipment: An estimated 17,861 units were sold in the aftermarket as service parts, and are covered by this report. An additional 32,831 units were sold for installation on new motor vehicles (buses and trucks and certain specialty vehicles) in the United States, and Sure Power is in the process of notifying those customers so that they are aware of this report.

4. Approximate percentage of vehicles or equipment estimated to actually contain the defect: The percentage is unknown; therefore, all affected units identified in this report will be included in the recall campaign.

5. Description of the defect: The specific potting compound used in the subject products for insulation was found 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 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.

6. Chronological summary of events leading to this determination:

- 2000: The product is introduced to the market by Sure Power Inc.
- 2000 through 2012: Sporadic field returns with reported 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 1 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 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.
- 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.

7. Description of proposed remedy (including schedule for dealer and customer notification):

Sure Power will offer to replace each affected product at no charge with a new battery equalizer or DC-DC converter that does not contain the specific potting material that is in the units that are the subject of this report. Sure Power will provide a schedule for customer notification under separate cover shortly.

8. Program for remedy campaign (including program for reimbursing any consumer who obtained the remedy at his/her own expense within one year of the opening of the EA, or within one year of this 573 report, whichever is earlier):

Sure Power will offer to replace each affected product at no charge with a new battery equalizer or DC-DC converter that does not contain the specific potting material that is in the units that are the subject of this report. Sure Power will contact each of its aftermarket customers and notify them of this recall, and will also notify its OEM customers. Sure Power will offer to reimburse any customer who replaced a battery equalizer or DC-DC converter that is the subject of this report at its own expense on or after September 9, 2012. A draft customer notification letter is enclosed with this report for review by ODI staff.