

# Part 573 Safety Recall Report

# 14V-634

**Manufacturer Name :** Chrysler (FCA US LLC)**Submission Date :** NOV 28, 2017**NHTSA Recall No. :** 14V-634**Manufacturer Recall No. :** P60**Manufacturer Information :**

Manufacturer Name : Chrysler (FCA US LLC)

Address : 800 Chrysler Drive  
CIMS 482-00-91 Auburn Hills MI  
48326-2757

Company phone : 1-800-853-1403

**Population :**

Number of potentially involved : 435,081

Estimated percentage with defect : 1 %

**Vehicle Information :**

Vehicle 1 : 2011-2014 Dodge Charger

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : Charger

Production Dates : JUN 17, 2010 - JAN 01, 2014

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 2 : 2011-2014 Chrysler 300

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : 300

Production Dates : JUN 17, 2010 - JAN 01, 2014

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 3 : 2011-2014 Dodge Challenger

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : Challenger

Production Dates : JUN 17, 2010 - JAN 01, 2014

VIN Range 1 : Begin : NR End : NR  Not sequential

Vehicle 4 : 2011-2014 Dodge Durango

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : Durango

Production Dates : JUN 17, 2010 -JAN 01, 2014

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 5 : 2011-2014 Jeep Grand Cherokee

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : Grand Cherokee

Production Dates : JUN 17, 2010 -JAN 01, 2014

VIN Range 1 : Begin :

NR

End : NR

Not sequential

## Description of Defect :

Description of the Defect : Some Dodge Charger, Dodge Challenger, Dodge Durango, Chrysler 300 and Jeep Grand Cherokee vehicles equipped with the 3.6L engine and 160 Amp Alternator may experience a rapid alternator failure having limited or no detection, which can result in vehicle shutdown/shut off and/or fire.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Vehicle shutdown/shut off and/or fire

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

## Supplier Identification :

### Component Manufacturer

Name : NR

Address : DENSO International America, Inc.

24777 Denso Drive, P.O. Box 5047 Southfield 480865047

Country : NR

## Chronology :

In August, 2014, Chrysler opened an investigation into concerns of alternator-related engine stall while driving, increased steering effort, Antilock Brake System/Electronic Stability Control deactivation or fire / smoke in 2011-2012 MY Dodge Charger vehicles.

Chrysler's investigation analyzed alternators from vehicles exhibiting these conditions, and found indications of thermal fatigue of the alternators' silicone diodes.

Based on warranty data analysis, 160 Amp alternator part returns and a common control system design, Chrysler expanded the investigation scope to include WD, WK, LC, and the LX platforms, equipped with Electric Hydraulic Power Steering ("EHPS"), but limited to the 3.6L equipped with a 160 Amp Alternator. The root cause was determined to be thermal fatigue in the silicon diode within the alternator rectifier bridge, due to a combination of high operating temperatures and cyclical system load conditions, induced by the EHPS. This condition can lead to failure of the 20 Amp Silicon Rubber potted Diode(s) in the 160 Amp alternator. Failure mode of the 160 Amp alternators can range from no output, reduced output, or a fully shorted to ground condition.

These modes can have corresponding variability in time to failure and warning to the driver.

During certain low battery voltage conditions associated with the 160 Amp alternator silicon diode thermal fatigue failures, a rapid sequential thermal failure of the silicon diodes may cause engine stalling without the advanced warning provided by prolonged illumination of the "Charging System Indication Lamp" or by the EVIC, the electronic vehicle information center.

Depending on the failure mode and timing, system voltage may drop to critical levels, disabling systems such as the, "Antilock Brake System/Electronic Stability Control", "Engine Control Module/Central Body Controller", or a total vehicle electrical system shut down (in the event of a short to ground failure mode).

## Description of Remedy :

**Description of Remedy Program :** On August 13, 2014, an investigation was opened into concerns of engine stall while driving, increased steering effort, Antilock Brake System/Electronic Stability Control deactivation or fire/smoke in the subject vehicles. The investigation indicated thermal fatigue of the 160 amp alternators silicone diodes.

(Additional Information needed in the Chronology)

- The suspect period was established as 2011-2014 MY LC/LD/LX/WD Vehicles & 2012-2014 MY WK Vehicles equipped with a 3.6L Engine (ERB Sales Code)/160 Amp Alternator (BAB Sales Code) built between April 22, 2010 through January 2, 2014.
- As of September 23, 2014, Chrysler identified approximately 322 CAIRs, 55 VOQs and 17 field reports which relate to, or may relate, to this issue.
- As of August 25, 2014 Chrysler is aware of one accident which relates to, or may relate to, this issue.
- On September 30, 2014, Chrysler determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall.

**How Remedy Component Differs from Recalled Component :** The remedy alternators were manufactured with higher amp resin diodes, the same diodes used in the 180 amp alternator that does not exhibit the condition.

Identify How/When Recall Condition was Corrected in Production : An engineering change to the 160 amp alternator, manufacturing with higher amp resin diodes, occurred on January 3, 2014.

## Recall Schedule :

Description of Recall Schedule : FCA US LLC notified dealers on February 20, 2015. The owner notification mailing began on February 27, 2015 and finished on April 30, 2015.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

\* NR - Not Reported