The information contained in this report was submitted pursuant to 49 CFR §573

Module - 7 ("TIPM-7") which can result in a no start or stall condition.

may experience a failure in the Fuel Pump relay within the Totally Integrated Power

<b>Part 573</b>	Safety Recall R	eport
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Manufacturer Name : Chrysler (FCA US LLC) Submission Date : AUG 01,2015 NHTSA Recall No. : 15V-115 Manufacturer Recall No. : R09

### **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

# Vehicle Information :

**Description of Defect :** 

FMVSS 1 :NR FMVSS 2 :NR

Vehicle : 2012-2013 Dodge Durango Vehicle Type : LIGHT VEHICLES Body Style : SUV Power Train : GAS Descriptive Information : 3.6L and 5.7L Engines Production Dates : JAN 18, 2011 - AUG 19, 2013

### VIN (Vehicle Identification Number) Range

Begin : NR	End : NR	☐ Not sequential VINs
Vehicle : 2012-2013 Jeep Grand Cherokee Vehicle Type : LIGHT VEHICLES Body Style : SUV Power Train : GAS Descriptive Information : 3.6L, 5.7L, 6.4L H Production Dates : SEP 17, 2010 - AUG 19,	Engines	
VIN (Vehicle Identification Number) Ra	nge	
Begin : NR	End : NR	□ Not sequential VINs

Description of the Defect : Some 2012-2013 MY WK and WD (3.6L, 5.7L, 6.4L) vehicles ("Subject Vehicles")



Number of potentially involved : 338,216

Estimated percentage with defect : 0

### 15V-115

**Population**:

# Part 573 Safety Recall Report

15V-115

Description of the Safety Risk : Loss of motive power

Description of the Cause : •Root cause has been identified as deformation of contact spring due to heat caused by the combination of contact power, and ambient temperature around the fuel pump relay.

Identification of Any Warning that can Occur : A stall event may be preceded by engine starting issues.

### **Supplier Identification :**

#### **Component Manufacturer**

Name : Continental Automotive Systems, Inc.

Address : One Continental Drive

Auburn Hills MICHIGAN 48326

**Country : United States** 

### **Chronology** :

• On Oct 1, 2013, an investigation was initiated after the safety office was notified that TIPM-7 parts were on national backorder due to high WK/WD demand.

• In Oct of 2013, a preliminary review of field narratives & vehicles indicated a fuel pump circuit in the TIPM-7 was not energizing the fuel pump.

• On Nov 6, 2013, in order to alleviate the TIPM backorder, an existing MOPAR kit, offering a standalone external replacement relay, was made available for vehicles exhibiting TIPM fuel pump relay symptoms.

• In Nov 2013, 11 relays were analyzed and demonstrated both spring deformation and contact erosion.

• During Dec 2013 – Feb 2014, cycle testing was conducted to analyze the effect of inductance and current at the fuel pump relay, but was unable to recreate TIPM-7 fuel pump relay failures.

• In Mar 2014, vehicle level analysis identified the presence of a startup pulse, which momentarily turns the fuel pump relay off in some vehicles, increasing relay cycles.

• In Mar – Apr 2014, steady state load tests were conducted to analyze the effect of continuous high temperature and high current at the fuel pump relay, but were unable to recreate TIPM-7 fuel pump relay failures.

• In May – Aug 2014, multiple fuel pump relay versions were put under test replicating the worst case WK/WD vehicle operating conditions with a more severe duty cycle. Testing was able to successfully recreate TIPM-7 fuel pump relay failures in an accelerated time frame, as well as confirm the reliability of the external relay solution.

• In Aug 2014, Chrysler's VRC authorized a voluntary safety recall for 2011 MY WK and WD 3.6L and 5.7L engines.

• In Sept 2014 – Jan 2015, additional testing and field data analysis indicated that additional WK/WD vehicles may be susceptible to the same type of fuel pump relay malfunction.

On Feb 17, 2015 the FCA US VRC authorized a voluntary safety recall for the 2012-2013 MY WK and WD 3.6L and 5.7L engines.

### **Description of Remedy :**

Description of Remedy Program : Conduct a Voluntary Safety Recall on all affected vehicles to install a new, more robust fuel pump relay, which will be installed external to the TIPM-7.

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art 573 Safety Recal	l Report	15V-115	Page
	-	nent : Remedy is a new part to the vehicle a installed externally to the TIPM. Production : The electrical architecture in a and WD vehicles was redesign include a new body controller pump relay.	2014 MY WK ned to
<b>Recall Schedule :</b> Description of Recall Sche		fication occurred on 4/10/2015 and the in d on 4/20/2015 and finished on 4/29/20	
		actions are estimated to be released on 7/2 tion letters are estimated to start on 7/27	
	The delay is due to supp	olier lead time on materials.	
	The final owner notifica	(dealer instructions) were released on 7/3 tion letter is currently in the printing and pletion of mailings is 8/14/2015.	
Planned Dealer Notification	on Date : JUL 31, 2015 - JUL 31	, 2015	

\* NR - Not Reported