

**Part 573 Safety Recall Report****15V-179****Manufacturer Name :** Chrysler (FCA US LLC)**Submission Date :** MAY 27,2015**NHTSA Recall No. :** 15V-179**Manufacturer Recall No. :** R15**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 : 5,638  
 Estimated percentage with defect : 100

**Vehicle Information :**

Vehicle : 2013-2015 Fiat 500 EV

Vehicle Type : LIGHT VEHICLES

Body Style : 2-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Some Fiat 500 BEV vehicles have incompatibility between the Electric Vehicle Control Unit (EVCU) software and the Battery Pack Control Module (BPCM) software that could cause a high voltage electrical system shut down.

Production Dates : MAR 27, 2012 - NOV 01, 2014

**VIN (Vehicle Identification Number) Range**

Begin : NR

End : NR

 Not sequential VINs**Description of Defect :**

Description of the Defect : In the event that the BPCM places the battery in limp home mode, by design there should be no requests to accept regenerative current to the battery. As a result of the software incompatibility, the EVCU does not recognize the limp home mode status and erroneously directs regenerative current to the battery pack causing an electrical system shut down to occur.

Description of the Safety Risk : When this error occurs, the vehicle will conduct a general shut-down by opening the EV battery pack contactors causing a loss of motive power which may increase the risk of crash.

The high voltage battery provides energy to the traction motor. Safety, brake and steering systems are powered by the 12V battery on the vehicle and are unaffected. The system can be reset and perform normally after cycling the ignition key up to three times.

Description of the Cause : The EVCU does not properly recognize Limp Home Mode status command by the BPCM.

Identification of Any Warning that can Occur : Depending on software level, there may be no indication that the BPCM is in limp home mode (only a stored code) and therefore, no signal to the operator.

**Supplier Identification :****Component Manufacturer**

Name : NR

Address : NR

NR

Country : NR

**Chronology :**

On March 13, 2014, updated EVCU and BPCM software went into production to implement improvements in charging system robustness, diagnostic capability and range estimation over life. In addition to the primary reasons for the software update, Limp Home Mode was included as part of battery pack software continuous improvement. It was because of this software update that the software incompatibility occurred where the EVCU did not recognize the Limp Home Mode.

On May 15, 2014, a Technical Service Bulletin was launched to update vehicles built prior to March 13, 2014 with the latest production calibration thereby introducing the communication incompatibility issue to that vehicle population.

**Description of Remedy :**

Description of Remedy Program : The software update recall remedy will be performed free of charge to owners.

How Remedy Component Differs from Recalled Component : The EVCU software calibration level was updated to reflect the new logic. All changes have been validated to perform as intended.

Identify How/When Recall Condition was Corrected in Production : On October 31, 2014, corrected software went into production.

**Recall Schedule :**

Description of Recall Schedule : FCA US LLC notified dealers on May 21, 2015. The owner notification mailing began on May 21, 2015 and finished on May 21, 2015.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

\* NR - Not Reported