

FCA US LLC Chronology  
Inoperative Windshield Wipers – 2016 MY Dart Vehicles  
Submitted on November 4, 2016

- On February 24, 2016, FCA US LLC's ("FCA US") Product Development Quality ("PDQ") department opened an investigation as a result of 2016 MY Dart warranty for wipers not functioning due to a circuit failure in the Body Control Module ("BCM") and began an investigation with engineering and the BCM supplier.
- On March 7, 2016, the FCA US Vehicle Safety and Regulatory Compliance ("VSRC") organization received information on 2016 MY Dart wipers not functioning due to a failed circuit in the BCM.
- On March 9, 2016, the FCA US VSRC opened an investigation as a result of the information from the Dart PDQ team.
- On March 17, 2016, FCA US engineering initiated daily Dart wiper technical meetings. Representatives from the FCA US BCM Engineering, Electro Magnetic Compatibility ("EMC") department, Wiper Engineering and the BCM supplier participated in these meetings to get into the technical information in an effort to determine root cause.
- On April 20, 2016, the FCA US EMC department was able to duplicate the failure mode of the BCM.
- On May 9, 2016, the FCA US EMC department identified the cause of damaged BCMS as being transient voltage spikes from the washer pump. The EMC department completed additional testing verifying the failure mode of the BCM using noisy pumps; additional testing continued to validate cause.
- On May 9, 2016, FCA US engineering provided a suspect pump to the Tier 2 supplier for root cause analysis of transient voltage spikes.
- On May 13, 2016, FCA US engineering had a meeting with the Tier 2 reservoir assembly supplier on transient voltage spikes from the pump.
- On May 19, 2016, the Tier 1 supplier of the reservoir assembly was brought into discussions on transient voltage spikes from the pump.
- On May 26, 2016, FCA US Supplier Quality initiated meetings to determine supplier cause and suspect part population.
- On June 1, 2016, the EMC department worked with the Tier 1 supplier on a sorting process to provide clean parts to Belvidere Vehicle Assembly Plant ("BVAP").
- On June 7, 2016, BVAP started production with clean parts based on an oscilloscope tested material sort of the washer pumps.
- On June 8, 2016, the Tier 2 supplier, the washer pump manufacturer, confirmed that the suspect pumps, supplied by FCA US engineering, had bad diode crimps which resulted in the transient voltage spikes.
- On June 26, 2016, the Tier 2 supplier identified production issues from the crimping tool and the build timing for those issues. The Tier 1 supplier identified all the timing associated with receiving pumps from the Tier 2 supplier until they arrived at BVAP. Based on timing, some 2015 MY Dart vehicles may have been produced with suspect windshield washer pumps.
- Between June 26, and August 20, 2016, clarification of details of pump supplier crimping issues continued.
- On July 5, 2016, an investigation into testing of the 2015 MY BCMS was initiated to determine affected vehicles.
- On July 25, 2016, a test plan was agreed upon for testing the 2015 MY Dart BCMS.
- On August 26, 2016, 2015 MY BCMS were received at FCA US and the EMC department testing of the BCMS commenced.

- On September 27, 2016, testing and data analysis was completed. The 2015 MY BCMs were not found to have an interaction with washer pumps exhibiting transient voltage spikes.
- All 2016 MY Dart vehicles built from April 13, 2015, start of production for the 2016 MY Dart vehicles, through June 7, 2016, when certified washer pumps were implemented into production at BVAP.
- As of October 28, 2016, FCA US identified approximately 17 CAIRs, zero VOQs and four field reports related to this issue.
- As of October 28, 2016, total warranty is 227 at 3.5 c/1000.
- As of October 28, 2016, FCA US is not aware of any injuries potentially related to this issue.
- On November 1, 2016, FCA US determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall of the affected vehicles.