

FCA US LLC Chronology
Select 2013-2015 MY Vehicles
Cracked Solder Joints in Transmission Control Module
Submitted on August 25, 2015

- Some 2013-2015 MY Dodge Dart (“PF”) vehicles may experience failure of the transmission control module (“TCM”) internal solder joint(s), which may result in a transmission shift to neutral event (loss of motive power).
- On March 10, 2014, the FCA US LLC (“FCA US”) Customer Advocate Group became aware of 12 warranty claims involving 2013-2015 MY PF vehicles equipped with dry dual clutch transmissions (“DDCT”)
- On July 28, 2014, engineering analysis identified a common failure mode, separated solder joints on specific internal component/pins within the TCM.
- Between July and September 2014, the Customer Satisfaction Powertrain Quality (“CSPQ”) organization was investigating a quality concern of MIL lights being set for a loss of communication with the TCM.
- On September 10, 2014, the Vehicle Safety and Regulatory Compliance (“VSRC”) department was notified of TCM issues and possible failure modes associated with separated solder joints on a component within the controller used in the DA1 sales code DDCT transmission.
- On September 26, 2014, an audit of the affected printed circuit board point force measurements was completed by FCA US, demonstrating that production brackets used on certain Dodge Dart Vehicles were exerting significantly more force to the failure area on the TCM printed circuit board than other benchmark brackets that use the same TCM (Fiat 500L and Giulietta).
- On October 7, 2014, additional point load tests demonstrated lower force transferred to printed circuit board by an interim bracket modification to include foam pads and a spacer.
- On October 10, 2014, Interim Action IAA I1006-S14-00 was implemented in production to add bracket foam pads and spacers to Dodge Dart vehicles equipped with DA1 transmissions. This was a temporary corrective action as testing, demonstrated directional improvement.
- On October 28, 2014, FCA US Engineering confirmed a transmission shift to neutral event as a possible failure mode for separated solder joints within the TCM.
- On November 10, 2014, FCA US VSRC opened an internal investigation.
- On November 19, 2014, additional point load measurements were completed with the TCM in a new bracket design demonstrating no significant change to force applied the TCM printed circuit board when clamped in the new bracket.
- On January 8, 2015, the investigation identified 23 customer incidents reporting loss of motive power.
- Engineering activity to confirm failure modes and effects and possible corrective measures was ongoing from January 2015 to July 2015.
- On April 17, 2015, the VSRC began monitoring warranty associated with the interim bracket design.
- On July 21, 2015, the first TCM warranty replacement with the interim bracket design occurred; a failure mode analysis is currently in process. No additional TCM warranty replacements have occurred since the implementation of the interim bracket.
- On July 24, 2015, the suspect period for production concluded with the implementation of the new bracket design for the 2016 MY.
- As of August 17, 2015, FCA US is not aware of any accidents or injuries related to this issue.