

**2014MY Soul Airbag Control Unit (ACU)
Basis of Safety Defect Determination 573.6(c)(6)**

August 2019	Kia Motors America, Inc. (KMA) receives lawsuit complaint alleging non-deployment of the frontal airbags in a 2014MY Soul.
October 29, 2020	Event Data Recorder (EDR) data downloaded from subject 2014MY Soul. Data confirms curtain airbags, side airbags and driver's seatbelt pretensioner deployed. Front airbags did not deploy.
March-June 2021	Inspections of the subject 2014MY Soul conducted confirming the left and right front impact sensors were compromised and severed during impact-induced deformation likely resulting in loss of communication to the Airbag Control Unit from the front impact sensors early in the crash.
June 20-27, 2021	Based on the subject vehicle inspections results, Kia Corporation (Kia HQ) conducts two (2) vehicle crash tests in an attempt to duplicate frontal airbag non-deployment with similar incident crash conditions. Kia HQ unable to duplicate non-deployment. Front airbags deployed before both left and right front impact sensors were severed during crash sequence.
January 15, 2022	Kia HQ conducts additional vehicle crash test to duplicate non-deployment of frontal airbags with a more severe set of crash conditions than previously tested in June 2021. Non-deployment of the front airbags could not be duplicated. Front airbags deployed before both left and right front impact sensors were severed during crash sequence.
January 17-February 7, 2022	Kia HQ further conducts simulation testing, including review of frontal airbag deployment logic, to evaluate possible crash incident scenarios that could result in non-deployment of frontal airbags. Testing identifies very rare scenario that if communication to the Airbag Control Unit (ACU) from both the left and right front impact sensors is simultaneously lost extremely early in a crash, before frontal airbag deployment is commanded by the ACU, the front airbags will not deploy. Kia HQ also confirms no other similar incidents reported globally.
February 8-10, 2022	Kia HQ informs Kia North America Safety Office of test results and global field data. Kia NA Safety Office reviews field data and also confirms no similar non-deployment incidents other than the incident identified by the lawsuit.

February 11, 2022	Even though the simultaneous loss of communication from both left and right front impact sensors to the ACU before frontal airbag deployment is commanded by the ACU is a rare crash event, as a precautionary measure, Kia NA decides to conduct a safety recall for the 2014MY Soul. One (1) crash and (1) injury related to single lawsuit incident identified above. No fatalities or fires.
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