



15075 Chronology of Defect

On January 20, 2015, GM opened a product investigation to investigate warranty data associated with side-impact airbag sensor replacements and sensor-wire-harness repairs in Chevrolet Cobalt vehicles.

On March 18, 2015, GM's product-investigation engineer inspected the driver- and passenger-side front doors in several GM-employee owned 2009 and 2010 model year Chevrolet Cobalt Sedans. The vehicles did not contain damaged side-impact airbag sensors or wire harnesses, and the internal door components did not contact the sensors or wire harnesses during normal operation.

To attempt to locate and inspect a vehicle with a damaged side-impact sensor, the investigator identified a six-month period in 2010 during which many of the Cobalts that required side-impact sensor replacement were produced, and located a vehicle at a GM dealership that was produced during this period. The investigator inspected the vehicle on March 26, 2015, and found that the side-impact sensor wire harness in the driver-side front door was improperly routed, which caused the harness wires to contact the window regulator when the window was fully lowered.

Although this vehicle's airbag-service light was not illuminated and the roof-rail airbags were operational, the investigator suspected that the regulator could chafe the wire harness over time, and that this chafing, depending on the wire, could short the side-impact sensor circuit, illuminate the airbag-service light, and prevent the SDM from receiving data from the sensor. The investigator subsequently inspected a second vehicle that was produced during the suspect build window and observed the same regulator-to-harness contact in the driver-side front door. Like the first vehicle, the vehicle's airbag-service light was not illuminated and the roof-rail airbags were operational.

In early April 2015, GM worked with Continental, the supplier of the SDM and the sensor, to determine whether an SDM would resume receiving signals from a shorted sensor. On April 10, 2015, Continental informed GM that, if this condition occurs, the SDM will reset and resume receiving signals from the sensor once the vehicle is turned off and turned back on, and will continue to function normally until and unless it detects another electrical short in the circuit.

GM discussed this investigation with NHTSA officials on May 7, 2015, June 3, 2015, and July 23, 2015. On July 29, 2015, GM's Safety Field Action Decision Authority decided to conduct a safety recall.