



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 15-029
Date Opened: 08/18/2015
Investigator: Brian Smith
Approver: Stephen Ridella
Subject: SRS Control Module Failure

Date Closed: 06/17/2016
Reviewer: Scott Yon

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Honda (American Honda Motor Co.)
Products: MY 2008 - 2010 Honda Accord
Population: 341,444

Problem Description: Malfunction of the air bag control module may prevent air bags from deploying in a crash. This malfunction causes the air bag status/readiness indicator lamp to illuminate and the air bag system remains disabled until repaired.

FAILURE REPORT SUMMARY

| | ODI | Manufacturer | Total |
|----------------------------|-----|--------------|-------|
| Complaints: | 32 | 326 | 352** |
| Crashes/Fires: | 1 | 1 | 2 |
| Injury Incidents: | 1 | 0 | 0 |
| Number of Injuries: | 1 | 0 | 0 |
| Fatality Incidents: | 0 | 0 | 0 |

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: This investigation is closed, see NHTSA Safety Recall 16V056.

Summary:

As discussed further below, and by letter dated January 22, 2016, Honda is recalling certain model year (MY) 2008 through 2010 Honda Accords to replace a defective air bag/SRS control module that can result in the Supplemental Restraint System (SRS) becoming fully inoperative (disabled). See NHTSA Safety Recall 16V056 at SaferCar.gov for further details.

Honda's response to an agency Information Request letter indicated that the SRS module was manufactured by tier-one supplier Continental and contained a power supply ASIC manufactured by tier-two supplier Atmel. The original ASIC was susceptible to a moisture ingress issue due to inadequate ASIC passivation layer. Water ingress could result in moisture reaching the Titanium Nitride (TiN) layer in the ASIC causing corrosion and breakage of electrical circuits. The damaged ASIC then causes failures of the SRS module resulting in 1) incomplete boot-up when power is supplied to the module or 2) the inability of the module to establish either internal or external bus communications. In either case the air bag readiness indicator light on the instrument cluster is illuminated and all air bags and seat belt pretensioners are disabled.

During the investigation, ODI obtained the SRS module from a complainant crash vehicle where the air bags did not deploy despite a significant frontal impact. An inspection of the module was performed at a Continental facility. The inspection confirmed that the module had the ASIC fault thus preventing the SRS module from completing the boot-up process. An attempt was made to recover stored EDR data from the module however none was present; this outcome is consistent with an Atmel ASIC failure. A second SRS module alleged to have the ASIC problem was inspected during the same visit. This second module was unable to communicate with the test equipment. The ASIC was replaced on this module and full function was restored to the module confirming the ASIC as the cause of the SRS

module fault.

According to Honda, tier-two Atmel implemented three different corrective actions in early 2008. Implementation of the corrective actions into module production by tier-one Continental, and into vehicle production by Honda resulted in three distinct vehicle populations. The first population consists of certain non-consecutively built MY 2008 to 2010 Accords with modules that did not contain any of the corrective actions. This population of 341,444 vehicles exhibited a significant level of module failure in service and is thus being recalled. The second population of 382,693 non-consecutively built MY 2008 to 2010 Accords contained two of the three corrective actions. This population exhibited a significantly lower level of SRS module failure, compared to the first population, but a marginally higher level compared to the third population. Honda is conducting a 15 year unlimited mileage extended warranty program for this second population. Under the program Honda will replace the SRS module free of charge for vehicles that experience an SRS module malfunction due to ASIC failure. Owners eligible for the extended warranty will be notified by Honda in writing. The third population consists of vehicles containing all three corrective actions, this population exhibits a normal level of SRS module failure.

Based on the safety recall and extended warranty this investigation is closed.

The VOQ reports cited above can be reviewed at SaferCar.gov under the following identification numbers: 10871612, 10869953, 10810554, 10788238, 10781994, 10778712, 10765025, 10761583, 10759019, 10758622, 10747850, 10735806, 10734761, 10733519, 10715339, 10703521, 10676517, 10653157, 10648611, 10633431, 10629318, 10627454, 10606626, 10604360, 10583069, 10578211, 10533114, 10500547, 10480012, 10462403, 10457826, 10441706