



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 13-021
Date Opened: 06/14/2013
Investigator: Michael Lee
Approver: Frank Borris
Subject: Occupant Classification System Failure

Date Closed: 09/30/2013
Reviewer: Scott Yon

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Suzuki Motor of America, Inc.
Products: 2006-2011 Suzuki Grand Vitara and 2007-2011 Suzuki SX4
Population: 205,552

Problem Description: The sensor mat for the OCS, intended to identify the type/size of the occupant, fails and causes the air bag warning light to illuminate, indicating that the frontal passenger air bag is not suppressed for a seated child or small-stature adult.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	140	2,011	2103**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	14,502	14,502

*Description of Other: Warranty claims related to, or likely related to, OCS problems.

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close this Preliminary Evaluation; NHTSA recall 13V-405.

Summary:

Suzuki Motor of America is conducting a safety recall to remedy the occupant classification system's (OCS) sensor mats in approximately 193,936 model year 2006-2011 Suzuki Grand Vitara and 2007-2011 Suzuki SX4 vehicles (see NHTSA recall 13V-405 for more details). The sensor mat installed in the front passenger seat can develop an electrical circuit disconnection as a result of repeated flexing of the seat from use of the seat. According to Suzuki, when the failure occurs, the OCS system, by design, will not suppress the frontal passenger air bag for a seated child or small-stature adult. A deploying passenger air bag can cause serious injury to such an occupant.

The recall population excludes those vehicles that previously had proper remedies under the special coverage campaign for this issue (~11,600) that began in July 2012. The recall remedy will be to install a new front passenger seat cushion assembly that includes an improved OCS sensor mat and an OCS control module with updated algorithms designed to properly identify the type/size of the seated occupant. Consequently, this recall action will address various OCS related problems, including a programming error (associated with diagnostic trouble code B1318) related to detecting a change or shifting in load on the front passenger seat in the model year 2009 Grand Vitara and SX4 vehicles. This Preliminary Evaluation is closed.

The ODI reports cited above can be reviewed online at <http://www-odi.nhtsa.dot.gov/owners/SearchNHTSAID> under the following identification numbers: 10178750, 10185778, 10200217, 10200123, 10206368, 10217021, 10250561, 10254251, 10263756, 10283309, 10285166, 10294320, 10316125, 10323718, 10324530, 10326910, 10332645, 10347204, 10348957, 10349038, 10350237, 10353604, 10354901, 10355400, 10364190, 10367631, 10369777,

10371056, 10373558, 10375165, 10375789, 10376071, 10376621, 10378154, 10380794, 10382860, 10392447, 10392434, 10392599, 10393975, 10395430, 10395602, 10395821, 10395983, 10398172, 10400092, 10400035, 10401106, 10401424, 10404772, 10405359, 10406459, 10407500, 10409412, 10409993, 10413235, 10418162, 10419237, 10419578, 10425035, 10425212, 10426703, 10434905, 10435090, 10435091, 10437600, 10437892, 10437994, 10438100, 10438501, 10438613, 10439357, 10439979, 10440088, 10442968, 10442759, 10442883, 10443173, 10443592, 10443594, 10444434, 10445034, 10445447, 10446215, 10446580, 10447689, 10448161, 10448446, 10448499, 10448554, 10449238, 10450746, 10451260, 10452961, 10453168, 10453403, 10453376, 10454445, 10454978, 10455231, 10455529, 10456043, 10456367, 10456407, 10459063, 10460417, 10460510, 10462016, 10463337, 10464941, 10464693, 10467988, 10468641, 10479583, 10479929, 10481120, 10484053, 10484863, 10486369, 10486729, 10487379, 10491755, 10499622, 10506034, 10508282, 10511057, 10511439, 10512962, 10521656, 10521779, 10523512, 10523931, 10524266, 10526435, 10533196, 10535513, 10537314, 10537619, 10543672, 10544287.