



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 12-004
Prompted by: PE12-003, Consumer Complaints
Date Opened: 06/11/2012 **Date Closed:** 06/21/2013
Investigator: Emily Reichard **Reviewer:** Scott Yon
Approver: Frank Borris
Subject: Driver's Master Power Window Switch

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: General Motors LLC, Isuzu Manufacturing Services of America
Products: 2006-2007 GMT360/370 Platform Vehicles; 2005 Saab 9-7X
Population: 486,759
Problem Description: A short within the driver door module may cause it to overheat which could melt components of the door module, producing odor, smoke or, in some cases a fire with flame.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	170	619	742**
Crashes/Fires:	14	77	80**
Injury Incidents:	0	4	4
Number of Injuries:	0	4	4
Fatality Incidents:	0	0	0
Other*:	0	20,400	20,400

*Description of Other: Warranty claims for replacement of the driver door module

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: This Engineering Analysis is closed. See Safety Recalls 12V-406 and 13V-248.

Summary:

On August 15, 2012 General Motors (GM) announced a regional recall action (12V-406) involving model year (MY) 2006-2007 Chevrolet Trailblazer, GMC Envoy, Buick Rainier, Isuzu Ascender and MY2005-2007 SAAB 9-7x vehicles originally sold or currently registered in the salt belt states of Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin, and the District of Columbia. The recall remedy requires the inspection and repair or replacement of the master power window switch, which GM refers to as a driver door module (DDM). At the same time, GM implemented a special coverage program to replace failed DDMs for vehicles registered outside of these states. ODI was not satisfied with GM's exclusion of non-salt belt vehicles and continued its investigation. On June 13, 2013, GM submitted a related recall notification (13V-248) to reclassify the initial special coverage program into a safety recall for vehicles that were not previously repaired under special coverage.

The Office of Defects Investigation (ODI) opened Engineering Analysis EA12-004 on June 11, 2012 to further investigate allegations of DDM thermal incidents in model year (MY) 2006-2007 Chevrolet Trailblazer vehicles. Thermal incidents involve cases where fire-related events such as smoke and melt are present. ODI has received 170 reports alleging a thermal event occurred. Complainants stated that the DDM melted and in some cases produced odor and/or smoke. Fourteen of these incidents led to a fire where visible flames were reported or the damage extended significantly beyond the DDM. In addition to the 170 reports listed above, ODI received 63 reports alleging

the DDM acted erratically or became inoperative. In response to ODI's Information Request (IR), GM provided 619 unique consumer complaints that related to the alleged problem. Seventy-seven of those reports led to a fire with flame, and 4 reported injuries of smoke inhalation and/or slight burns from contact with hot switches. GM also submitted 20,400 warranty claims for replacement of the DDM, most of which involved inoperative switches.

The problem condition is caused by fluids, such as rain water, entering the driver's door module and subsequently causing corrosion that could result in an electrical short in the printed circuit board. A short may cause the power door lock and power window switches to function intermittently or become inoperative. However, the electrical short may also cause overheating that could melt components of the door module, producing odor, smoke or in some cases fire with flame. The circuit board was redesigned and GM implemented the new design into vehicle production on May 14, 2007. All failures cited above occurred in vehicles produced before this build date (i.e., with the original design DDM). GM also reported that all MY 2006-2007 GMT360/370 platform vehicles and MY 2005 SAAB 9-7x vehicles utilized the same DDM and therefore ODI expanded the subject population to include these vehicles.

This investigation is closed on the basis of GM's announcement of safety recalls 12V-406 and 13V-248.

The ODI complaints cited above can be reviewed at: <http://www-odi.nhtsa.dot.gov/owners/SearchNHTSAID>, see the attached list for ODI numbers.

Thermal Incidents Cited in EA12-004 Closing Resume

10218104, 10229743, 10247838, 10252743, 10274337, 10275626, 10284010, 10294713, 10326179, 10330175, 10406203, 10409023, 10414691, 10417938, 10423865, 10426281, 10434446, 10445657, 10447750, 10447754, 10447757, 10447770, 10447788, 10447831, 10447865, 10447880, 10447892, 10447938, 10447994, 10447996, 10447997, 10448028, 10448086, 10448138, 10448176, 10448201, 10448337, 10448455, 10448464, 10448478, 10448540, 10448900, 10448941, 10449135, 10449150, 10449166, 10449169, 10449722, 10450055, 10450202, 10450511, 10451918, 10452301, 10452743, 10452895, 10453101, 10453161, 10453227, 10453261, 10453578, 10453746, 10454211, 10454539, 10455122, 10455150, 10455279, 10456529, 10457116, 10457644, 10457811, 10458224, 10458243, 10458485, 10458599, 10458743, 10458846, 10460062, 10460141, 10460732, 10460843, 10461101, 10461126, 10463304, 10464303, 10464791, 10466270, 10466516, 10466727, 10468349, 10468899, 10469029, 10469098, 10469208, 10469239, 10469275, 10469317, 10469413, 10469602, 10469659, 10469692, 10470299, 10470354, 10471373, 10471417, 10471449, 10471512, 10471530, 10471712, 10471740, 10471777, 10471932, 10471933, 10472377, 10472583, 10472586, 10472665, 10473109, 10473890, 10475276, 10475284, 10475343, 10475611, 10475886, 10475893, 10476489, 10476654, 10477142, 10477144, 10477247, 10477280, 10478295, 10479275, 10479523, 10479890, 10480598, 10480618, 10480717, 10480831, 10480862, 10481503, 10482502, 10483656, 10484050, 10484965, 10487622, 10487678, 10487854, 10487942, 10488030, 10488823, 10488923, 10488997, 10490250, 10490461, 10490683, 10491782, 10491844, 10492107, 10492167, 10493251, 10493279, 10493672, 10495152, 10497842, 10501406, 10501469, 10503696, 10508446, 10509901, 10516007

Inoperative/Erratic Incidents Cited in EA12-004 Closing Resume

10217640, 10228514, 10396958, 10447813, 10449236, 10450284, 10451584, 10451878, 10452197, 10452586, 10453951, 10454196, 10455301, 10455469, 10456285, 10464704, 10465337, 10466801, 10468913, 10471251, 10471462, 10471489, 10471498, 10471499, 10471585, 10471727, 10471822, 10471858, 10471871, 10472050, 10472373, 10473741, 10474098, 10474468, 10474722, 10475616, 10476798, 10477169, 10477201, 10478645, 10479337, 10479592, 10479786, 10479852, 10480643, 10483169, 10483789, 10484691, 10486029, 10487162, 10488020, 10488814, 10489283, 10490805, 10494604, 10494718, 10497776, 10500066, 10502141, 10504477, 10504581, 10510068, 10511297