

# Part 573 Safety Recall Report

# 18V-137

**Manufacturer Name :** Hyundai Motor America**Submission Date :** OCT 05, 2018**NHTSA Recall No. :** 18V-137**Manufacturer Recall No. :** 174**Manufacturer Information :**

Manufacturer Name : Hyundai Motor America

Address : 10550 Talbert Avenue

Fountain Valley CA 92708

Company phone : 800-633-5151

**Population :**

Number of potentially involved : 581,038

Estimated percentage with defect : 100 %

**Vehicle Information :**

Vehicle 1 : 2011-2013 Hyundai Sonata

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

**Descriptive Information :** The subject vehicles include certain model year 2011 through 2013 Hyundai Sonata vehicles produced between December 11, 2009 and August 31, 2012 at the Hyundai Motor Manufacturing Alabama ("HMMA") plant. These vehicles are equipped with the Advanced Airbag System ("AAS") and an airbag control unit ("ACU") containing a certain application-specific integrated circuit ("ASIC") that, in the absence of circuit protecting diodes, could be susceptible to electrical overstress ("EOS") during certain frontal crash events. The ACU was designed and produced by ZF TRW. Hyundai's best understanding is that no other Hyundai or Genesis vehicles contain the same ACU as the ones installed in the subject vehicles.

Production Dates : DEC 11, 2009 - AUG 31, 2012

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2011-2012 Hyundai Sonata Hybrid

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

**Descriptive Information :** The subject vehicles include certain model year 2011 through 2012 Hyundai Sonata Hybrid vehicles produced between December 2, 2010 and August 23, 2012 by Hyundai Motor Company ("HMC") in the Republic of Korea. These vehicles are equipped with the Advanced Airbag System ("AAS") and an airbag control unit ("ACU") containing a certain application-specific integrated circuit ("ASIC") that, in the absence of circuit protecting diodes, could be susceptible to electrical overstress ("EOS") during certain frontal crash events. The ACU was designed by ZF TRW and produced by MOBIS. Hyundai's best understanding is that no other Hyundai or Genesis vehicles contain the same ACU as the ones installed in the subject vehicles.

Production Dates : DEC 02, 2010 - AUG 23, 2012

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Defect :**

Description of the Defect : The subject vehicles are equipped with an original equipment airbag control unit ("ACU") which detects a crash signal and commands deployment of the Advanced Airbag System ("AAS") and seat belt pretensioners when necessary. The subject ACU's contain a certain application-specific integrated circuit ("ASIC") that, in the absence of circuit protecting diodes, could be susceptible to electrical overstress ("EOS") resulting in the inability to properly deploy the AAS and seat belt pretensioners during certain frontal crash events.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If the ACU circuitry is not adequately protected and the ASIC becomes damaged, the AAS and seat belt pretensioners may not deploy in some crashes where deployment is necessary, increasing the risk of injury.

Description of the Cause : As of the date of this filing, Hyundai believes that the ASIC used in the subject ACUs could be susceptible to EOS because it lacks adequate circuit protection. In at least one crash test, damage to the DS84 ASIC from EOS could have caused the loss of the AAS and seat belt pretensioner deployment. At the request of Hyundai, ZF-TRW is continuing their analysis of the source of EOS and non-communication of the DS84 ASICs from other related crash-test ACUs. HMA notes that this defect appears substantially similar to the defect in Recall No. 16V-668 where EOS appeared to be a root cause of AAS non-deployment in significant frontal crashes involving certain Fiat Chrysler vehicles. As such, Hyundai reasonably believes that this is a defect in original equipment installed in the vehicles of more than one manufacturer. See 49 CFR 573.3(f).

Identification of Any Warning that can Occur : None

**Supplier Identification :****Component Manufacturer**

Name : ZF TRW

Address : Active & Passive Safety Technology  
12001 Tech Center Drive Livonia MICHIGAN 48150

Country : United States

**Chronology :**

Please see Attachment A for the amended chronology.

## Description of Remedy :

**Description of Remedy Program :** Hyundai Motor America plans to notify owners of affected vehicles to return their vehicles to their Hyundai dealers to install an external wire filter kit. This procedure will be performed at no charge.

Hyundai will provide reimbursement to owners for repairs according to the plan submitted on May 15, 2018.

Hyundai will provide reimbursement to owners for repairs according to the plan submitted on November 2, 2016.

**How Remedy Component Differs from Recalled Component :** The remedy will include an external wire filter kit that will prevent internal damage in the AAS ACU in the event of a crash.

**Identify How/When Recall Condition was Corrected in Production :** Redesigned ACU's were used beginning with model year 2013 Hyundai Sonata vehicle production.

## Recall Schedule :

**Description of Recall Schedule :** Dealers were notified in late September 2018. Owners will be notified in early October 2018.

**Planned Dealer Notification Date :** SEP 28, 2018 - SEP 28, 2018

**Planned Owner Notification Date :** OCT 01, 2018 - OCT 05, 2018

\* NR - Not Reported