

Part 573 Safety Recall Report**15V-871****Manufacturer Name :** Hyundai Motor America**Submission Date :** DEC 21, 2015**NHTSA Recall No. :** 15V-871**Manufacturer Recall No. :** 137**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 : 155,000

Estimated percentage with defect : 1

Vehicle Information :

Vehicle : 2011-2012 Hyundai Elantra

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : GAS

Descriptive Information : 1) Model Year 2011 through 2012 Hyundai Elantra sedan vehicles manufactured by Hyundai Motor Company in Korea from November 11, 2010 through September 20, 2011.

2) Model Year 2011 through 2012 Hyundai Elantra sedan vehicles manufactured by Hyundai Motor Manufacturing Alabama from October 29, 2010 through October 25, 2011.

Production Dates : OCT 29, 2010 - OCT 25, 2011

VIN (Vehicle Identification Number) Range

Begin : NR

End : NR

 Not sequential VINs**Description of Defect :**

Description of the Defect : The subject vehicles are equipped with an Electronic Stability Control (ESC) system to help mitigate severe understeer/oversteer conditions that can lead to a loss of control. The system utilizes input signals from various sources, including the steering angle, wheels speed, and yaw rate sensors to compare the vehicle's actual and intended paths. The ESC system provides computer-controlled braking and/or reduced engine torque, if necessary, to help the driver maintain control of the vehicle. In the affected vehicles, the Yaw Rate/"G" sensor signal may send a signal that results in 1) inadvertent ESC system intervention, 2) illumination of the "ESC" indicator lamp in the instrument cluster, and 3) a diagnostic code for the yaw sensor stored in the ESC Control Module.

Hyundai is not aware of any accidents or injuries related to this condition.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Inappropriate brake application to one or more wheels and/or reduced engine torque may occur suddenly and unexpectedly due to an ESC system malfunction, increasing the risk of a crash.

Description of the Cause : NR

Identification of Any Warning that can Occur : Illumination or flashing of the "ESC" indicator lamp in the instrument cluster.

Supplier Identification :

Component Manufacturer

Name : Mando Corporation

Address : 343-1, Manho-Ri, Poseung-Eup

Pyungtaek-Si, Kyonggi-Do FOREIGN STATES 451-821

Country : Korea, Republic of

Chronology :

In February of 2015, Hyundai began an investigation of reports of intermittent activation of the vehicle's Electronic Stability Control system accompanied by flashing of the "ESC" indicator lamp in the instrument cluster. During diagnosis, dealer technicians reported a stored diagnostic code accompanied by illumination of the ESC indicator lamp in the instrument cluster indicating a malfunctioning Yaw Rate/"G"-Sensor. The vehicles were repaired by replacing the system's Yaw Rate/G sensor. Hyundai continued to monitor field claims and began collecting incident parts for evaluation. In April, 2015 an incident field vehicle was identified, and Hyundai conducted instrumented testing at Hyundai's California Proving Grounds in an attempt to duplicate and record an event; however, a malfunction of the Electronic Stability Control (ESC) system could not be duplicated. On August 1, 2015 Hyundai received a report regarding a 2012 Elantra sedan with reduced power, a flashing "ESC" indicator lamp in the instrument cluster, and brake application of the right front wheel. On November 20, Hyundai acquired this vehicle for additional testing. Testing of this vehicle continues.

As part of the investigation, the sensor vendor's manufacturing records were reviewed. Sensors produced after September 7, 2011 incorporate manufacturing revisions to address potential contamination of the sensor's semiconductor material and updated sensor self-test logic. The revisions correspond to a significant reduction in the sensor claim rate after the manufacturing revisions and logic update. Based on the available information, on December 18, 2015, Hyundai made the determination to proceed with a safety recall campaign for vehicles utilizing Yaw Rate/G sensors manufactured before after September 7, 2011.

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 verify the proper operation of the yaw sensor and update the ESC system's calibration to the most recent

version.

How Remedy Component Differs from Recalled Component : NR

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : NR

Planned Dealer Notification Date : FEB 19, 2016 - FEB 19, 2016

Planned Owner Notification Date : FEB 19, 2016 - FEB 19, 2016

* NR - Not Reported