

Part 573 Safety Recall Report

18E-043

Manufacturer Name : TRW Automotive, Inc.

Submission Date : SEP 23, 2024

NHTSA Recall No. : 18E-043

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : TRW Automotive, Inc.

Address : 12001 Tech Center Dr

Livonia MI 48150

Company phone : 999

Population :

Number of potentially involved : 3,619,897

Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : ZF

Model : Airbag control units (ACUs) incorporated into vehicles recalled by Hyundai Motor America (HMA), Kia Motors America (KMA) and Toyota Motor Engineering & Manufacturing (TMEA).

Part No. : --

Size : NR

Function : NR

Descriptive Information : The ACUs in the recalled vehicles incorporate a certain application specific integrated circuit (ASIC) that may experience electrical overstress (EOS) damage caused by negative transient voltages generated in the vehicle environment that are outside the vehicle manufacturer's specification. The population identified below is the total number of ACUs ZF supplied to HMA and KMA for use in the vehicles identified in those manufacturers' recalls. This submission does not cover vehicles included in 16V-668. The ZF component referenced in that recall has design differences, and the root cause in that recall was attributed in part to specific vehicle conditions.

On September 4, 2024, NHTSA requested that ZF update its original submission in light of the recall of certain vehicles manufactured by TMEA subsequent to the initial filing of ZF's report. ZF notes that on January 17, 2020, TMEA initiated NHTSA Recall No. 20V-024, which included certain vehicles with ACUs that use the same DS84 ASIC that was also used in ACUs manufactured for the vehicles subject to the recalls initiated by HMA (18V-137) and KMA (18V-363), referenced above. As TMEA explained in Recall 20V-024, TMEA did not recall other vehicles that also incorporated ACUs with DS84 ASICs, stating that a sufficient negative transient occurring in a crash in timing that could affect airbag deployment was unlikely due to body construction and other factors for those vehicles. TMEA's 2020 recall and report is consistent with ZF's understanding, as set forth in various materials provided to NHTSA, that the ACUs incorporated in vehicles subject to the various manufacturer recalls contain an ASIC that may experience EOS damage caused by negative transient voltages generated in the vehicle environment that are outside the vehicle manufacturer's specification, and that the susceptibility of the ASIC to such damage is influenced by numerous vehicle-specific, vehicle-dependent, and crash-dependent factors.

Production Dates : DEC 01, 2009 - FEB 25, 2019

Description of Defect :

Description of the Defect : ZF is submitting this report based on the recall of vehicles by HMA and KMA that incorporate ACUs supplied by ZF. The ASIC in the ACUs may experience EOS damage caused by negative transient voltages generated in the vehicle environment that are outside the vehicle manufacturer's specification during particular front impact events.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If a negative transient outside the vehicle manufacturer's specification is generated in a front impact event, it can cause EOS damage to the ASIC that may compromise the ACU's ability to command deployment of an airbag or seatbelt pretensioner in certain circumstances, thus increasing the risk of injury.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : ST Microelectronics

Address : 19111 Victor Parkway
Livonia Michigan 48150

Country : United States

Chronology :

See attached.

Description of Remedy :

Description of Remedy Program : The vehicle manufacturers have decided to recall vehicles and will provide or have provided for the recall remedy, notify dealers and owners, and submit quarterly recall data reports to NHTSA.

How Remedy Component Differs NR
from Recalled Component :

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

Recall Schedule :

Description of Recall Schedule : The vehicle manufacturers have decided to recall vehicles and will provide or have provided for the recall remedy, notify dealers and owners, and submit quarterly recall data reports to NHTSA.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name : Kia Motors America

Address : 111 Peters Canyon Road
Irvine CA 92606

Country : US

Company Phone : NR

Name : Hyundai Motor America

Address : 10550 Talbert Avenue
Fountain Valley CA 92708

Country : US

Company Phone : NR

Name : Toyota Motor Engineering & Manufacturing

Address : 6565 Headquarters Drive
Plano TX 75204

Country : US

Company Phone : 8003314331

* NR - Not Reported