

Part 573 Safety Recall Report

23E-056

Manufacturer Name : Allison Transmission, Inc.

Submission Date : JUL 24, 2023

NHTSA Recall No. : 23E-056

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Allison Transmission, Inc.

Address : One Allison Way
Indianapolis IN 46222

Company phone : 317-242-5000

Population :

Number of potentially involved : 584

Estimated percentage with defect : 1 %

Equipment Information :

Brand / Trade 1 : Allison Transmission

Model : Emergency Vehicle Series 6th Generation TCM

Part No. : See Descriptive Info

Size : N/A

Function : TCM

Descriptive Information : The Transmission Control Module (TCM) is an electronic controller and software that interfaces with vehicle on-board controllers, commanding transmission gear shifting and communicating transmission performance.

Spartan Fire, LLC Recall No. 23V156 potentially involves B, C221, C222, C223, or C224 6th Generation Controls software levels in 1000, 2000, 3000, and 4000 Emergency Vehicle Series (EVS) TCMs. Allison Transmission, Inc. (ATI) supplied approximately 584 transmissions with the subject software levels intended for use in fire trucks.

Production Dates : NOV 08, 2021 - OCT 24, 2022

Description of Defect :

Description of the Defect : As reported by Spartan Fire (Recall No. 23V156), "A population of GEN 6 TCMs may fail to achieve 4th gear lock up when initiating the pump mode sequence after reversing the vehicle." Two final-stage manufacturers that purchased incomplete vehicles covered by Recall No. 23V156 passed through Spartan's recall and submitted their own defect information reports. See Recall No. 23V316 (Custom Fire Apparatus, Inc.) and Recall No. 23V366 (Marion Body Works Inc.).

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : According to Spartan Fire, "Failing to engage 4th gear lock up will prevent the vehicle from achieving the full sequence needed to pump water. This increases the risk of personal injury and equipment damage."

Description of the Cause : As described in Spartan Fire's defect information report, "There is an oversensitive refresh rate for the driveline sensor software logic with TCM software level C224."

Identification of Any Warning that can Occur : According to Spartan Fire, "The failure could occur without warning."

Involved Components :

Component Name : ATI 6th Generation TCM

Component Description : Transmission control module

Component Part Number : Software levels BC221-22

Supplier Identification :

Component Manufacturer

Name : Allison Transmission

Address : NR

NR

Country : NR

Chronology :

- Feb. - Mar. 2023: ATI learned of testing by Spartan Fire, LLC that indicated a potential issue involving shift to pump mode (4th lockup). ATI worked with Spartan Fire to investigate the concern and determined that certain software for the 6th Generation TCMs could, in a limited and specific set of circumstances, inhibit 4th lockup when the PTO was initiated. There were no reports of this condition occurring in the field.
- Mar. 8, 2023: Spartan filed a defect information report with NHTSA for fire trucks related to the issue. Recall No. 23V156.
- Apr. 2023: ATI reviewed the issue and concluded that it did not present a safety-related defect due to the limited circumstances under which the condition could result and that a key cycle would resolve the issue. ATI issued a service bulletin to its customers regarding this issue.
- May 2023: ATI submitted a copy of the service bulletin to NHTSA.
- Jun. 2023: ATI learned from NHTSA that two upfitter customers of Spartan Fire submitted defect information reports based on Spartan Fire's defect determination (Recall Nos. 23V316 and 23V366). ATI provided NHTSA with information related to ATI customers that received TCMs with the software subject to

Spartan Fire's defect notice.

- Jul. 2023: ATI reviewed the defect information reports submitted by these manufacturers to NHTSA and advised NHTSA that, while only Spartan Fire had determined there was safety-related defect, ATI would submit a report under 49 CFR 573.3(f) in the interest of cooperating with NHTSA.

ATI has not determined that the calibration issue presents a safety-related defect. Moreover, ATI is not aware of any reports of this issue occurring in the field.

Description of Remedy :

Description of Remedy Program : ATI is not conducting a recall of its products, but is providing this information report in accordance with 49 CFR Part 573.3(f). ATI has already notified its vehicle-manufacturer customers of the information contained in this report. ATI sold all transmissions with the TCM 6th Generation Controls as original equipment. The vehicle manufacturers will determine the impact, if any, on their vehicles, and will take appropriate steps.
All of the subject transmissions remain under the manufacturer's limited warranty and, therefore, are exempt from the reimbursement requirements (to the extent they would otherwise be applicable).

How Remedy Component Differs from Recalled Component : ATI is not conducting a recall of these products. Transmissions supplied after 10/24/22 have updated software that resolves the potential issue. The updated software has been made available to all affected ATI customers.

Identify How/When Recall Condition was Corrected in Production : ATI updated the TCM software on 10/24/2022 to level BC231.

Recall Schedule :

Description of Recall Schedule : ATI is not conducting a recall of these products. The information contained in this information report has been provided to ATI's customers.

Planned Dealer Notification Date : JUL 31, 2023 - JUL 31, 2023

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 : SPARTAN MOTORS

Address : 1541 Reynolds Rd
Charlotte MI 48813

Country : US

Company Phone : 5175884700

Name : PIERCE MANUFACTURING INC.

Address : 2600 American Dr
Appleton WI 54914

Country : US

Company Phone : 9207307040

* NR - Not Reported