







Recall Service Bulletin RSB23-180-001

DATE: 4/17/2023

APPLIES TO: This service bulletin applies to certain 2022 through 2024 model year,

> Gladiator, Metro Star, FC-94, and KME Panther model emergency response chassis cabs built between August 2022 and February 2023.

NHTSA/TC Id: 23V-156 / TC2023-126

CONDITION: Certain Allison transmissions with split pto operation, C224 and earlier

6th generation controls software levels could fail to perform 4th gear

transmission lockup in pump mode after exiting reverse gear.

Test 4th gear lock-up after coming out of reverse gear and going into pump **CORRECTION:**

mode. If transmission fails to shift to 4th gear lock up in pump mode, local

Allison distributor will need to be contacted for software update.

V3 **CLASSIFICATION:**

GENERAL INSTRUCTIONS:

Thoroughly review entire service bulletin before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan Fire, LLC. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.









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STEP BY STEP INSTRUCTIONS:

- 1) Perform test of pump shift sequence to determine if unit is affected.
 - 1. With park brake off, put the transmission in reverse and back up several feet.
 - 2. Shift transmission in neutral.
 - 3. Set park brake.
 - 4. Go through pump shift procedure.
 - a. Shift pump shifter from road to pump mode.
 - b. Look for Pump Engaged light.
 - c. Once pump engaged light comes on, shift transmission to drive (D).

At this point, the shifter should be displaying 4-4, indicating 4th gear lock up is achieved.

- 2) If it operates as noted above, the truck is operating correctly and requires no further action. Please contact Spartan Fire LLC at 1-800-867-6478 to notify us that the truck is operating correctly.
- 3) If it is displaying 5,1 or range inhibit on the dash, then 4th gear lock up was not achieved and the Allison TCM will need to have the software updated by the local Allison distributor.
- **4)** Use the webpage below to locate your local authorized Allison distributor to schedule the software update. https://allisontransmission.com/sales-service-locator

Reference Allison Field Action Letter 2023FA02 on pages 3-7









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SUBJECT: 3000 and 4000 Emergency Vehicle SeriesTM (EVS) 6th Generation TCM Recalibration

MODELS AFFECTED: 3000 and 4000 EVS Series Transmissions with 6th Generation Controls

Introduction:

Allison Transmission has identified a concern limited to C224 and earlier 6th Generation Controls software levels that affects split shaft PTO configurations only:

· If the transmission is in Reverse, then the shift to Pump Mode (4th Lockup) may be inhibited unless the transmission is first shifted to Drive.

Field Action Transmission Identification:

Prior to the repair of an eligible transmission, a Field Action Authorization Number must be obtained by logging on to https://hub.allisontransmission.com/field-actions. Enter the transmission serial number, VIN, vehicle vocation code, etc. and request an authorization. If you receive an authorization number, this is confirmation that the field action has NOT been performed. If the field action has NOT been performed, proceed with the repair as defined. Include the authorization number in the 4WARDTM Work Performed Comments field prior to submitting the warranty claim. If you are unable to obtain an authorization number, and you believe the transmission qualifies for the field action based on the transmission serial number/vehicle model/configuration, contact the Allison Technical Assistance Center (TAC) at 1-800-252-5283 or 317-242-0700 or email: TAC@allisontransmission.com.

Once a Field Action Authorization Number has been obtained, confirm that the TCM has C221, C222, C223 or C224 software. This can be found by connecting the TCM with Allison DOC®. The DTC and General Info tab will show the Cal ID in the TCM Information section. The first four digits of the Cal ID give the current software level. The software level must be updated if the first four digits of the Cal ID are any of the following: C221, C222, C223 or C224.



NOTE: Only 3000 and 4000 EVS transmissions with 6th Generation Controls integrated with split shaft PTOs are covered.

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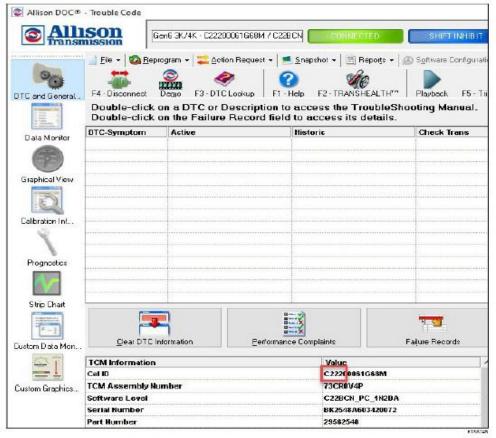


Figure 1. Current Software Level Example in Allison DOC

Corrective Action Required

If the vehicle is in the affected population, then update software level from C221, C222, C223, or C224 to C232 or later by programming based on the TCM serial number in TCM ReflashTM. To receive the latest software level, it is necessary to check the box labeled "Download Latest Calibration" on the Add screen in TCM Reflash (refer to Figure 2). After programming is complete, use Allison DOC to verify that the second through fourth digits of the Cal ID are 232 or later (refer to Figure 3).

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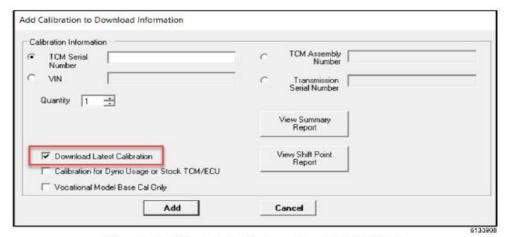


Figure 2. Updating to Latest Software Level in TCM Reflash

NOTE: The "Download Latest Calibration" option in TCM Reflash should only be used when there is a specific need to update the software.

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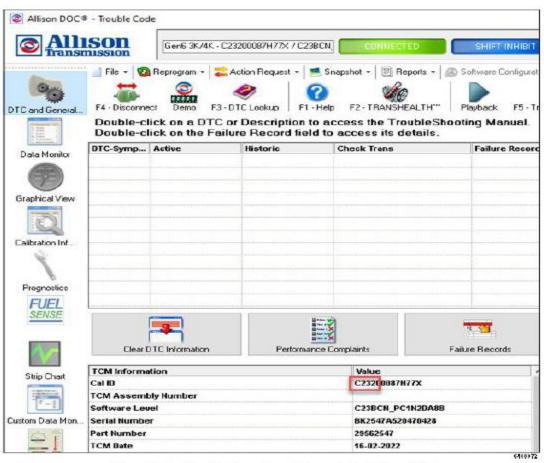


Figure 3. Updated Software Level Example in Allison DOC

Claim Submittal Information:

Allison Authorized Service Network must submit work performed per this Field Action as outlined in Table 1 and Table 2.

Include the Field Action Authorization Number in the 4WARD Work Performed Comments field.

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When filing each claim, enter the recalibrated TCM serial number into the Failed Component Serial Number field of the 4WARD claim.

Table 1. Claim Information

CLAIM TYPE	Campaign
FIELD ACTION	2023FA02
PRIMARY FAILED PART	400
COMPLAINT CODE	AT02
FAILURE CODE	CC03

Table 2. Labor Codes/Hours

LABOR OPERATION CODE	LABOR HOURS	LABOR OPERATIONS
00096501	1.0	RECALIBRATE TCM
00096400	0.5	TEST DRIVE

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