

TT8045EN
September, 2017
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SUBJECT: Incorrect Calibration Setting for Primary Mode: Gears in Freightliner Custom Chassis Corporation (FCCC) Motorhome Chassis

MODELS AFFECTED: FCCC Motorhome Chassis MC, XBS, XCR, and XCS with 2500MH Series Transmission

Description of Complaint:

The Preselect Downshift is not functioning properly in a certain population of FCCC motorhome chassis. This is due to an incorrect Calibration Setting for Primary Mode: Gears.

A customer may complain that during a preselect downshift request, the transmission is shifting at normal speeds and not allowing a higher downshift point, which would allow the engine speed to increase. Without higher engine speeds, the desired amount of engine braking is not attainable.

The following Preselect Downshift feature operates when the Calibration Setting is correct:

- The operator initiates the Preselect Downshift Schedule by selecting any forward range on the Pushbutton Shift Selector (PBSS) lower than the current range.
 - When a range has been preselected, shifts to and from the gears above the preselected gear range occur at higher than normal engine speeds.



NOTE: Preselect downshifting is used to maintain higher engine speed, resulting in increased engine braking.

Cause:

The Primary Mode: Gear calibration setting was incorrectly set to 6321 instead of the proper setting of 6M1 for 6-speed units in the affected population. 5-speed units were incorrectly set to 5321 instead of the correct setting of 5M1 for units in the affected population. This correction will allow preselect downshift, which allow an increase in engine speed, thus increasing the amount of engine braking.

Service Channel Procedure:

FCCC will be issuing letters to customers with motorhomes within the affected population under FCCC ICI 17-024. The ICI 17-024 letter will direct the customer to take the motorhome to an Allison authorized outlet that has Allison TCM Reflash™ capability. The Allison authorized outlet will need to obtain an Authorization Number to confirm that the motorhome is included within FCCC ICI 17-024. The procedure for obtaining an Authorization Number is provided below. Once an Authorization Number has been obtained, record the serial number from the TCM in the motorhome.

Using Allison DOC®, determine the current setting for the Primary Mode: Gears parameter. Once connected to the TCM, select the Calibration Information icon. Look at Group: Primary Mode to verify the current Primary Mode: Gears setting. Refer to Figure 1. Record the current setting for later reference. Using Allison TCM Reflash™, enter the TCM serial number into the 5th Generation Controls database. The system will correct the calibration settings for the specific TCM when the calibration is downloaded. Flash the TCM with the updated calibration.

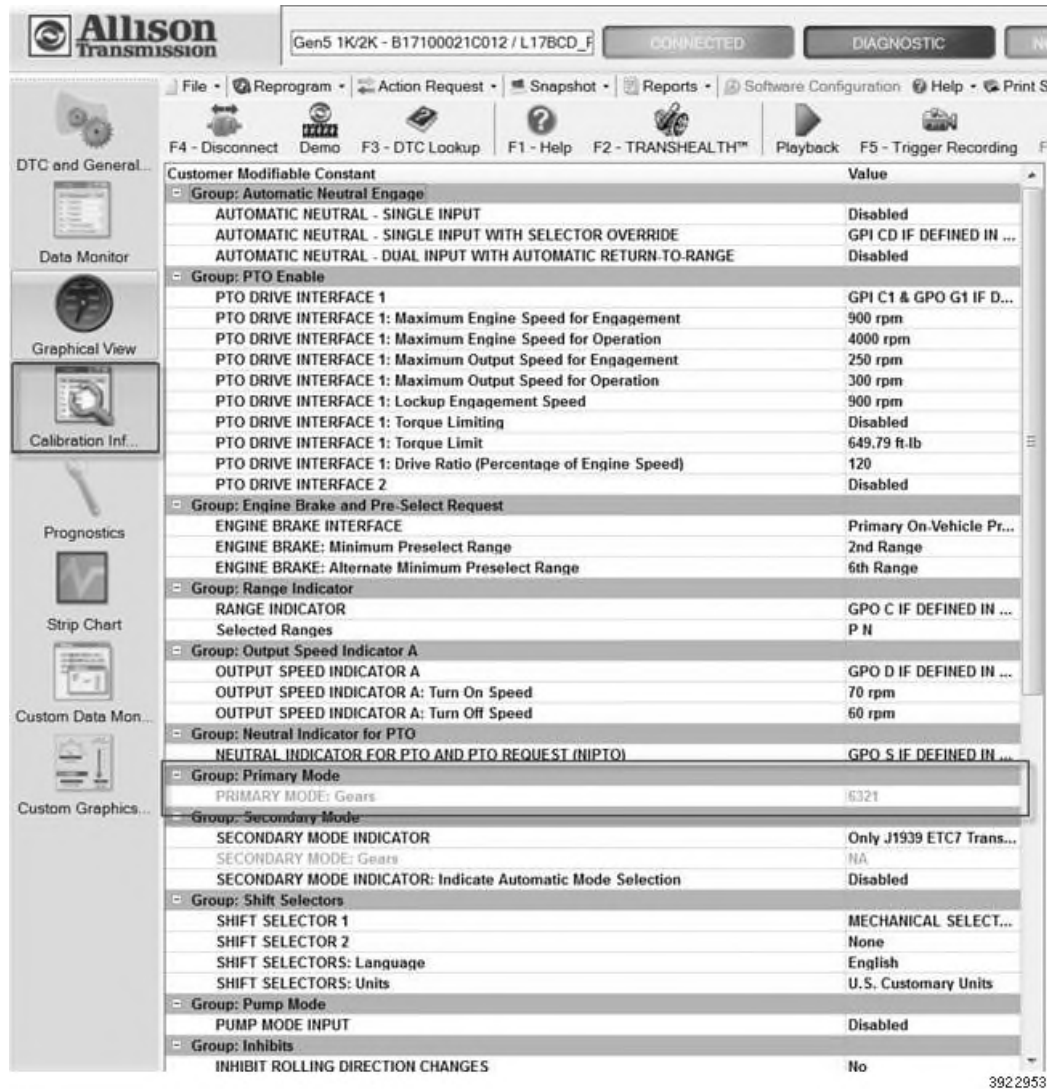


Figure 1. Example of the Incorrect Setting Prior to Reflashing



NOTE: An Authorization Number is required prior to recalibrating the TCM.

Connect to the TCM using Allison DOC® to verify that the calibration parameters are set to correct settings. Once connected to the TCM, select the Calibration Information icon. Look at Group: Primary Mode to verify the correct setting. Figure 1 is an example of the incorrect setting prior to reflashing. Notice the Value for Primary Mode: Gears is set to 6321. The value may be 5321 on some of these motorhomes.

Procedure to Obtain an Authorization Number:

Log on to the Allison Transmission Extranet. Under the “Service” heading, select “Field Action Authorization” and enter the transmission serial number. If the requested serial number does not return an authorization number on the Allison Transmission Extranet, this indicates that the recalibration has already been performed (should have been performed in conjunction with TT8009EN using TT8009 as the Special Activity Indicator), or the serial number is not covered under this FCCC Field Service Campaign. If an authorization number is returned, record the authorization number and include it in the AWAARE claim narrative.

Figure 2 is an example of the correct setting after reflashing. Notice the Value for Primary Mode: Gears is set to 6M1. The value may be 5M1 on some of these motorhomes.

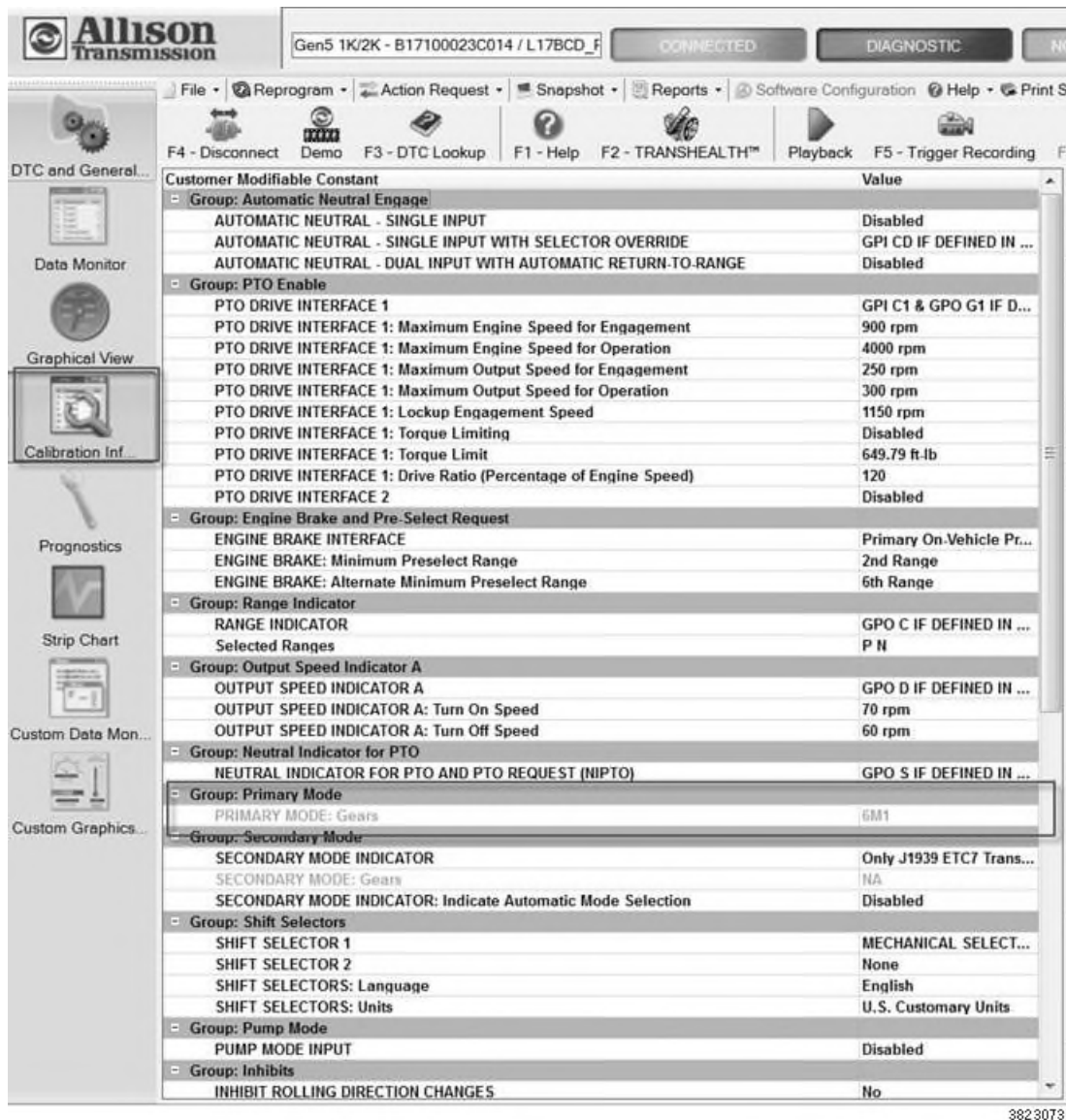


Figure 2. Example of the Correct Setting After Reflashing



NOTE: 6-speed transmission will use 6M1 and 5-speed transmissions will use 5M1.



NOTE: Some of the TCMs included in this Tech Tip are also included in TT8009EN. When either Tech Tip is implemented by updating the calibration using the TCM serial number, both changes will be made at the same time. Special Activity Indicator TT8009 should be used for TCMs that are included in both populations. Only one (1) service event should occur. Upon updating the calibration, the Engine Governed Speed, Primary Mode: Shift Speed, and Secondary Mode: Shift Speed settings may also be modified per Tech Tip TT8009EN. Refer to TT8009EN for more information

After recalibration, if the calibration parameters are not set as listed above, call the Allison Technical Assistance Center (TAC) at 800-252-5283

Warranty Information:

Allison Service Outlets shall submit an AWAARE claim type 8 for each vehicle completed under this Tech Tip TT8045. Any additional work shall be claimed separately even if performed simultaneously with another transmission repair; i.e., overhaul, solenoid replacement, etc.

AWAARE Claim Variable Values	
Claim Type	8
Authorization Number	XXXXX
Special Activity Indicator	TT8045
Primary Failed Part	400
Complaint Code	AT02
Failure Code	BA04

AWAARE Claim Labor Variable Values		
Labor Operation Code	Labor Hours	Labor Operation Description
096501	1.0	TCM Recalibration
096400	0.5	Final Test Drive



NOTE: Labor is not to exceed 1.5 hours. The maximum labor time allowed to reprogram the TCM is 1 hour. If equipped with a green J1939 diagnostic connector, disconnect the TCM 80-way connector, use the Allison TCM Reflash™ Harness (J47276) and WTEC Load Box (J42455A) to update the TCM software and calibration (refer to SIL 01-TR-16). Another 0.5 hour will be permitted to test drive the vehicle after the recalibration is completed. Additional customer change requests will not be covered by this program and will be at the customer's expense.



NOTE: The issue outlined in this document is not an Allison Transmission, Inc. defect in material or workmanship.



NOTE: Travel time is allowed only for multiple vehicles and only once per location.
