

Revisions to this document are noted
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TT8009EN, Rev. A
September, 2017
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SUBJECT: Incorrect Engine Governed Speed Calibration Setting in Freightliner Custom Chassis Corporation (FCCC) Motorhomes

MODELS AFFECTED: 2500MH Transmissions in FCCC Motorhomes

Description of Complaint:

A certain population of FCCC Motorhomes equipped with a 2500MH transmission is known to have incorrect engine governed speed settings in the Transmission Control Module (TCM) calibration, outside transmission specifications. Customers with motorhomes in this population have complained that the transmission is unable to make full throttle upshifts. They may also state that they are only able to get the transmission to upshift after backing off the throttle.

Cause:

This complaint is caused by the engine governed speed and performance shift schedule shift speed calibrations being set to 2800 rpm for an engine with an actual governed speed of 2600 rpm, in contradiction of transmission specifications.

Service Channel Procedure:

FCCC will be issuing letters to customers with motorhomes within the affected population under FCCC Important Campaign Information Letter ICI17-008. The FCCC letter should direct the customer to take the motorhome to an Allison authorized dealer or distributor that has TCM Reflash capability. The Allison dealer/distributor will need to obtain an authorization number to confirm that the motorhome is included within the population for ICI17-008. 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 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.



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

Procedure to obtain an Authorization Number:

Log on to the Allison Transmission Extranet. Under the "Service" heading, click on "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 or the serial number is not covered under the FCCC field service campaign. If an authorization number is returned, record the authorization number and include it in the claim narrative in AWAARE for reimbursement.

After reflashing the TCM, the technician should connect to the TCM using the Allison DOC® tool and look at the “Additional Calibration Information” located on the “Calibration Information” tab to verify that the following calibration parameters are set accordingly:

- Engine Governed Speed = 2600 rpm
- Primary Mode: Shift Speed = 2600 rpm
- Secondary Mode Shift Speed = 2200 rpm



NOTE: Some of the TCMs included in this Tech Tip are also included in TT8045EN. 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 and only one (1) service event should occur. Upon updating the calibration, Primary Mode: Gears may also be modified per Tech Tip TT8045EN. Refer to TT8045EN for more information.

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

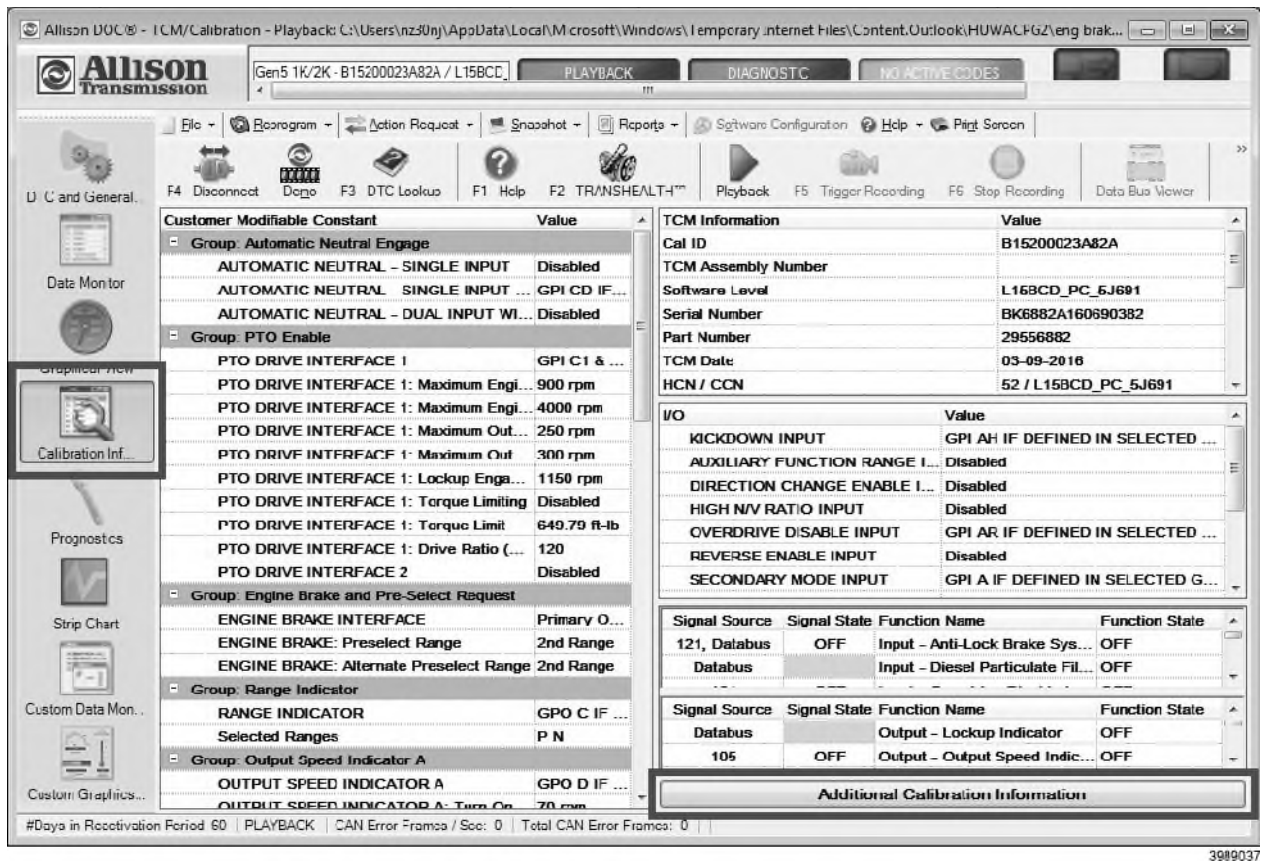


Figure 1. Calibration Information Tab

Additional Calibration Information

Read-Only Calibration Information/Constants	Value	SEM/LRTP & Engine Torque Information	Value
ENGINE MAKE AND MODEL	CUMMINS IS...	SEM/LRTP Compatibility	Compatible
NUMBER OF ENGINE CYLINDERS	Other	SEM Validated	ECM supports SEM
ACCELERATION RATE MANAGEMENT	Disabled	LRTP Validated	ECM supports LRTP
NEUTRAL-TO-RANGE ASSIST (NRA)	Disabled	SEM Enabled Status	Enabled
PRIMARY MODE: Shift Schedule	Variable	LRTP Enabled Status	Enabled
PRIMARY MODE: Shift Speed	2600	SEM Torque Reduction Status	Correct Response
SECONDARY MODE: Shift Schedule	Variable	LRTP Torque Reduction Status	Correct Response
SECONDARY MODE: Shift Speed	2200	Unapproved SEM Torque Reducing Device	Information Not Valid
SECONDARY MODE: Starting Range Override	NA	Unapproved LRTP Torque Reducing Device	Information Not Valid
THROTTLE AND LOAD SOURCE	Primary On-V...	Max Eng. Torq. Allowed during loss of J1939 C...	559.81 ft-lb
ENGINE COVERED SPEED	2600	Peak Torque from AETC Message	619.55 ft-lb
OUTPUT TORQUE LIMITING: Default Turbine Torque wit...	13166.22 ft-lb		
OUTPUT TORQUE LIMITING: T-Case Low Output Torque...	13405.19 ft-lb		
OUTPUT TORQUE LIMITING: Reverse Output Torque Limit	13405.19 ft-lb		
OUTPUT TORQUE LIMITING: General Output Torque Limit	13405.19 ft-lb		
TORQUE CONVERTER	221		
RANGE INHIBIT INDICATOR: Enable Bulb Check on GPO...	Yes		
J1939 SA: AETC	00		
J1939 SA: CCVS1 Brake Switch	33		
J1939 SA: CCVS1 Cruise Control Active	254		
J1939 SA: CCVS1 Cruise Control States	254		

J1939 SAs (Source Addresses)

00 - Engine #1	15 - Retarder - Engine	41 - Retarder, Exhaust, Eng #1
03 - Transmission #1	16 - Retarder - Driveline	42 - Headway Controller
04 - Transmission #2	17 - Cruise Control	49 - Cab Controller - Primary
05 - Shift Console, Primary	23 - Instrument Cluster #1	61 - Exhaust Emission Controller
06 - Shift Console, Secondary	33 - Body Controller	232 - Forward Road Image Processor
11 - Brakes - System Controller	39 - Management Computer #1	
254 - Autodetected (To view "Autodetected" source addresses, connect to Data Bus Viewer and select J1939 as the protocol)		

Close

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Figure 2. Additional Calibration Information



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, then use 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.

Claim Filing Procedure:

Claims are to be submitted in AWAARE using the following tables:

Claim Type	8
Authorization Number	XXXXXXXX
Special Activity Indicator	TT8009
Primary Failed Part	400
Complaint Code	AT02
Failure Code	BA04

Labor OP	Labor Hours	Labor Operation
96501	1	TCM Recalibration
96400	0.5	Final Test Drive