

Revisions to this document are noted
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TT8009EN, Rev. B
August, 2018
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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 issued letters to customers with motorhomes within the affected population under FCCC Important Campaign Information Letter ICI17-008. The FCCC letter directed the customer to take the motorhome to an Allison authorized dealer or distributor that has TCM Reflash capability. Using Allison TCM Reflash, the Allison dealer/distributor enters 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.

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. 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.

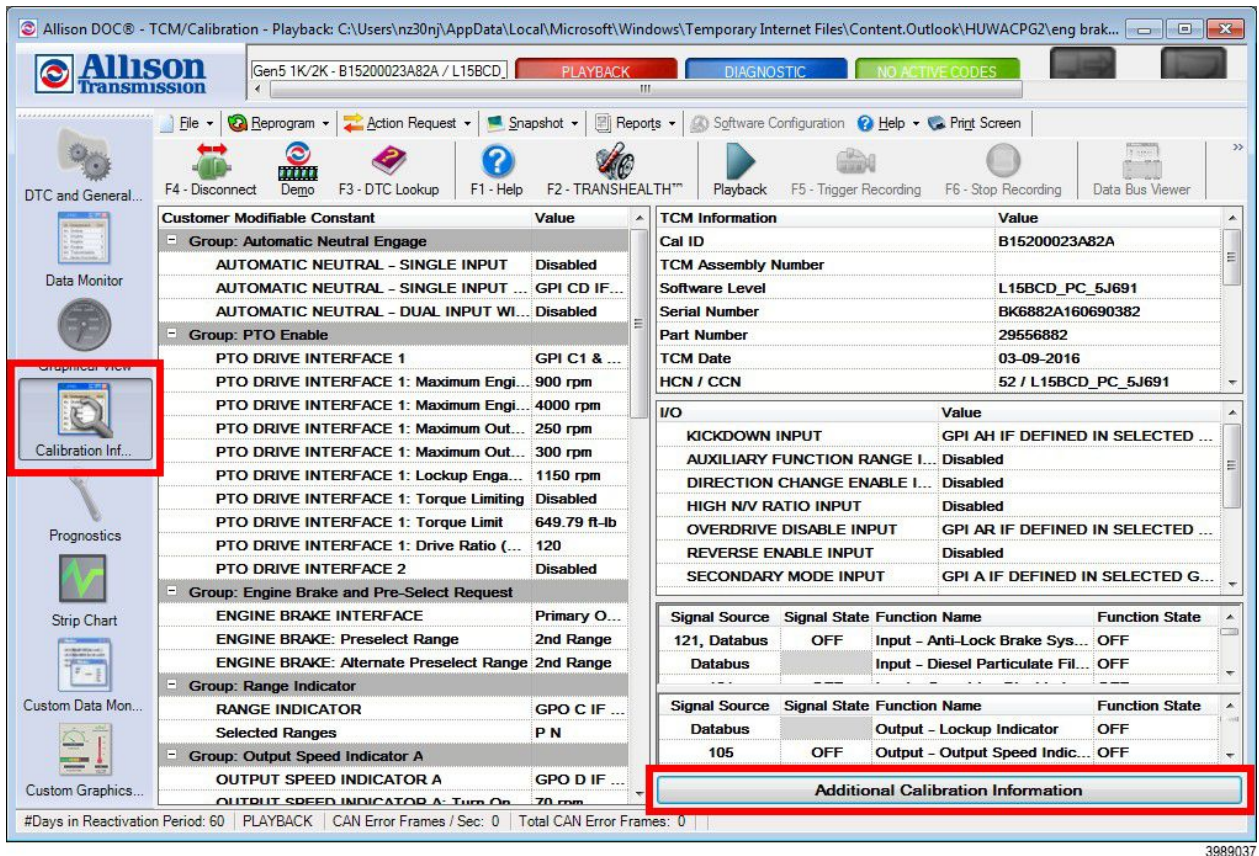


Figure 1. Calibration Information Tab

Additional Calibration Information	
Read-Only Calibration Information/Constants	Value
ENGINE MAKE AND MODEL	CUMMINS IS...
NUMBER OF ENGINE CYLINDERS	Other
ACCELERATION RATE MANAGEMENT	Disabled
NEUTRAL-TO-RANGE ASSIST (NRA)	Disabled
PRIMARY MODE: Shift Schedule	Variable
PRIMARY MODE: Shift Speed	2600
SECONDARY MODE: Shift Schedule	Variable
SECONDARY MODE: Shift Speed	2200
SECONDARY MODE: Starting Range Override	NA
THROTTLE AND LOAD SOURCE	Primary On-V...
ENGINE GOVERNED SPEED	2600
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

SEM/LRTP & Engine Torque Information	
SEM/LRTP Compatibility	Compatible
SEM Validated	ECM supports SEM
LRTP Validated	ECM supports LRTP
SEM Enabled Status	Enabled
LRTP Enabled Status	Enabled
SEM Torque Reduction Status	Correct Response
LRTP Torque Reduction Status	Correct Response
Unapproved SEM Torque Reducing Device	Information Not Valid
Unapproved LRTP Torque Reducing Device	Information Not Valid
Max Eng. Torq. Allowed during loss of J1939 C...	559.81 ft-lb
Peak Torque from AETC Message	619.55 ft-lb

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: 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).



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

Claim Filing Procedure:

As of May 31, 2018 claims for reflashing the TCM under this Tech Tip, TT8009 will no longer be paid by Allison Transmission, Inc. or the OEM. Any TCM reprogramming related to this Tech Tip will be a Customer Pay invoice. This Tech Tip will remain as a technical reference document only.