

SIL 07-TR-18
April, 2018
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SUBJECT: Neutral at Stop Premium Regulatory Calibration Change Restrictions

MODELS AFFECTED: 1000/2000/3000/4000 Series and TC10® Product Family Transmissions

Introduction

Effective April 19, 2018 with the release of BCD 181 software, vehicle OEMs may begin using the Allison Transmission Neutral at Stop (NAS) Premium Input Function as a part of their emissions certification process.

Software level BCD 181 will include new calibration parameter “NEUTRAL AT STOP: Emission Credit Vehicle,” which will be utilized by some OEMs to indicate that they have taken credit for the NAS Premium feature in their emissions certification process for a specific vehicle. There will be new restrictions on disabling or modifying this feature in vehicles that utilize this new calibration parameter.

OEM Approval Required:

If parameter “NEUTRAL AT STOP: Emission Credit Vehicle” is set to YES, then the OEM has indicated that the vehicle has been certified with NAS Premium, and changing or disabling NAS or swapping TCMs with another vehicle is restricted. In such instances, Allison Transmission Calibration Support will not support requests to disable or change the setting for “NEUTRAL AT STOP: Emission Credit Vehicle” or “NEUTRAL AT STOP” unless an OEM approval letter is provided. The OEM approval letter must meet the following requirements:

- From the OEM factory (not a Dealer)
- On the OEM’s letterhead or clearly identifying the OEM as the email source
- Stating approval of changes to the calibration settings for “NEUTRAL AT STOP” and “NEUTRAL AT STOP: Emission Credit Vehicle”, including original and new settings
- Identifying the name, position, and contact information of the OEM representative approving the change
- Listing the VIN and transmission serial number
- Identifying the original calibration information (TCM Assembly Number or TCM Serial Number), if available.



NOTE: 1000/2000 Series transmissions have specific hardware requirements for use with Neutral at Stop. Refer to SIL 18-1K2K-16: NAS Disabler Separator Plate and SIL 13-1K2K-17: NAS Retrack Valve Body to determine if transmission hardware changes are required in conjunction with calibration modifications.

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Please Note: Allison Transmission Service Information Letters are intended for use by professional, trained technicians, not for the “do-it-yourselfer.” They are written to inform those technicians of conditions that may occur on some transmission models (or serial numbers ranges) or to provide information that could assist in the proper servicing of a specific Allison transmission. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, do not assume that the Service Information Letter applies to your transmission, or that your transmission has the condition described. Product evolution and information updates are inevitable. Please see your authorized Allison Transmission service dealer or distributor to understand if your particular transmission may benefit from the information contained within the Service Information Letter.

How to Determine the Calibration Setting in the TCM:

The setting for “NEUTRAL AT STOP: Emission Credit Vehicle” can be found using Allison DOC® Premium version 2018.1 or later by choosing “Additional Calibration Information” on the Calibration Information screen.

Additional Calibration Information

Read-Only Calibration Information/Constants	Value	SEM/LRTP & Engine Torque Information	Value
J1939 SA: EBC1 EBS Brake Switch	254	SEM/LRTP Compatibility	Compatible
J1939 SA: EBC1 Engine Retarder Selection	254	SEM Validated	ECM doesn't support SEM
J1939 SA: EEC2 Accelerator Pedal Kickdown Switch	254	LRTP Validated	ECM doesn't support LRTP
J1939 SA: EEC2 Accelerator Pedal Position 1	254	SEM Enabled Status	Enabled
J1939 SA: EEC2 Accelerator Pedal Position 2	254	LRTP Enabled Status	Enabled
J1939 SA: EEC2 DPF Thermal Management	254	SEM Torque Reduction Status	Correct Response
J1939 SA: EEC2 Remote Accelerator Pedal Position	254	LRTP Torque Reduction Status	Correct Response
J1939 SA: EEC2 SCR Thermal Management	254	Unapproved SEM Torque Reducing Device	Information Not Valid
J1939 SA: EEC2 Vehicle Acceleration Rate Limit Status	254	Unapproved LRTP Torque Reducing Device	Information Not Valid
J1939 SA: PTOE Enable Switch - Transmission Input Shaft PT...	254	Max Eng. Torq. Allowed during loss of J1939 Com...	894.66 ft-lb
J1939 SA: PTOE Enable Switch - Transmission Input Shaft PT...	254	Peak Torque from AETC Message	619.55 ft-lb
J1939 SA: PTOE Enable Switch - Transmission Output Shaft P...	254		
J1939 SA: TC1 Transmission Mode 2	254		
J1939 SA: TC1 Transmission Mode 3	254		
J1939 SA: TC1 Transmission Requested Launch Gear	254		
J1939 SA: TC1 Transmission Reverse Gear Shift Inhibit Request	254		
J1939 SA: TCI Transfer Case Status	254		
J1939 SA: B2 Demanded Brake Application Pressure	254		
AUTOMATIC NEUTRAL - BRAKE-BASED (BBAN) INPUT	Disabled		
RANGE INHIBIT INDICATOR	Disabled		
HILL HOLD INTERFACE	Disabled		
NEUTRAL AT STOP: Emission Credit Vehicle	No		

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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The setting for “NEUTRAL AT STOP: Emission Credit Vehicle” can be also found in the FuelSense® section of ACCT (Allison Calibration Configuration Tool), which can be found in the Engineering section of the Allison HUB. The ACCT Calibration Summary Report will display this new parameter and calibration setting only if the answer is set to YES in the calibration.

FuelSense®		
GPIO Wire	Parameter	Setting
	FuelSense [16100]	FuelSense 2.0 Max [60]
	FuelSense 2.0: Coasting NEUTRAL AT STOP [17700]	DISABLED [0]
	DYNAMIC SHIFT SENSING [16000]	DISABLED [0]
	NEUTRAL AT STOP [25270]	PREMIUM - VIA SERVICE BRAKE STATUS INPUT
	NEUTRAL AT STOP: Brake Application Pressure Activation Level [25273]	83
	NEUTRAL AT STOP: Brake Application Pressure Deactivation Level [25274]	69
	A NEUTRAL AT STOP: Emission Credit Vehicle [25275]	YES [1]
	ACCELERATION RATE MANAGEMENT [172000]	ENABLED [1]

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When viewing or editing service calibration requests in ACCT, a green leaf icon  will appear next to the “NEUTRAL AT STOP: Emission Credit Vehicle” and “NEUTRAL AT STOP” parameters if the answer to NEUTRAL

AT STOP: Emission Credit Vehicle" parameter is set to YES. In this case, these parameters can only be modified by Allison service personnel upon receipt of OEM authorization.

Calibration Request Submittal:

The following documentation should be submitted to Allison Transmission Calibration Support at calibration_support@allisontransmission.com.

- Recalibration Email Request Form, which can be found in the Service section of the Allison HUB. Go to Allison TCM Reflash, Forms and Guides.
- OEM authorization letter.