

WATCH

WORLDWIDE ALLISON TRANSMISSION COMMUNICATION HOTLINE



Revisions to this document are noted
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WATCH #501, Rev. A
December, 2015
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SUBJECT: Allison Transmission 5th Generation Controls 2016 (B161, C161, and D161) Software Features and Enhancements

MODELS AFFECTED: 1000, 2000, 3000, 4000 Series Product Families, TC10 Series Transmissions

Introduction:

Allison Transmission, Inc. (ATI) is pleased to announce the release of the Allison 5th Generation Controls 2016 (B161, C161, and D161) Software Features and Enhancements. This release will include enhanced software and calibrations for the Transmission Control Module (TCM).

For Additional Information:

For further information regarding the Allison 5th Generation Controls, refer to the Allison 5th Generation Controls publications available on the Allison Transmission Extranet Tech Data website or contact your Allison representative.

This WATCH is organized into the following sections that describe the key features and enhancements to the 5th Generation Controls:

1000/2000/3000/4000 Series Product Families:

- Power Solutions International (PSI) 8.8L LPG Engine
- Extended Engine Run Time After VEPS Event

1000/2000 Series Product Families:

- Release of Five and Six Speed Configuration for the G60 Engine
- Inhibit Rolling Direction Change at Low Speeds

3000/4000 Series Product Families:

- Addition of Neutral at Stop Input (AS) to Multiple GPIO Packages
- Engine Options

Continuous Improvement Activities

- Shift Lever Selector Nomenclature Change

Engine Options (1000/2000/3000/4000 Series Product Families)

The following engine has been validated as an available option for the engine make and model parameter:

- Power Solutions International (PSI) 8.8L LPG Engine

Table 1. (PSI) 8.8L LPG Engine Parameters

Parameter ID	Answer 4 =
11020	SEM & LRTP OFF - Other Engine - Gasoline/Ethanol/E85 (spark ignited fuels)

Extended Engine Run Time Before VEPS Event

Allison Transmission is extending the current 10 hour engine run time clock by 10 hours. This will allow for VEPS OEMs to have more time to make adjustments after the initial successful VEPS events. After 20 total engine run hours, the VCP will not be able to re-VEPS a TCM.

Release of Five and Six Speed Configuration for G60 Engine (1000/2000 Series Product Families)

Allison Transmission is adding six speed shift masks in addition to the already available five speed shift masks as part of the G60 engine group.

Customers wishing to utilize six speed configurations will need to configure parameter ID 17000 in either ACCT or VEPS. Vehicle OEMs have the responsibility to determine if drivelines, tires, and other components are capable of supporting the output speeds of the transmission when **6** (Sixth Range) is enabled.

Inhibit Rolling Direction Change at Low Speeds (1000/2000 Series Product Families)

Allison Transmission is offering the ability to inhibit a direction change either from **D** (Drive) to **R** (Reverse) or **R** (Reverse) to **D** (Drive) at drive shaft speeds above 90 RPM. This would be about 6 km/h or (4 mph) in typical applications.

Addition of Neutral at Stop Input (AS) to Multiple GPIO Packages (3000/4000 Series Product Families)

Neutral at Stop (AS) via wire will be added to I/O packages 170, 180 & 183 for 3000/4000 series transmissions.

The Neutral at Stop (AS) input is a change to existing packages, it uses an existing inactive pin within these packages, and if this function is turned on this change makes the pin active.

If this function is used via hard wire input, some additional rewiring or wire harness changes in the vehicle may be required as specified in Tech Data so that Neutral at Stop functionality will work on the vehicle.

For both VEPS and ACCT using customers, new PAR files will be required to enable the Neutral at Stop Input (AS).

Engine Options (3000/4000 Series Product Families)

The following engine has been added as an option for the Engine make and Model Parameter:

- Navistar N9/10 2013 (4000 series)

Shift Lever Selector Nomenclature Change

Clarified the naming of Value 2 for the Parameter IDs 19000 and 19010 to reflect that it is a 4th Generation Shift Lever with Inverted Forward Ranges for both Shift Selector 1 and Shift Selector 2.

Parameter ID	Vocational Rating Value/Range	
	Former	Current
19000	SHIFT SELECTOR 1	
	1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY 2 = ALLISON J1939-BASED WITH INVERTED FORWARD RANGES 4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON 5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON 8 = ALLISON J1939 STRIP 3-BUTTON 9 = ALLISON J1939 STRIP 6-BUTTON	1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY 2 = ALLISON J1939-BASED 4TH GEN LEVER* WITH INVERTED FORWARD RANGES 4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON 5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON 8 = ALLISON J1939 STRIP 3-BUTTON 9 = ALLISON J1939 STRIP 6-BUTTON
19010	SHIFT SELECTOR 2	
	1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY 2 = ALLISON J1939-BASED WITH INVERTED FORWARD RANGES 4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON 5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON 8 = ALLISON J1939 STRIP 3-BUTTON 9 = ALLISON J1939 STRIP 6-BUTTON	1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY 2 = ALLISON J1939-BASED 4TH GEN LEVER* WITH INVERTED FORWARD RANGES 4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON 5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON 8 = ALLISON J1939 STRIP 3-BUTTON 9 = ALLISON J1939 STRIP 6-BUTTON
*Denotes change in Name		

Release Plan Timing:

Table 2. Release Plan Timing

Description	Release Date
B161, C161, D161 Production System Calibration (PSC) Release	10/19/2015
B161, C161, D161 Production Calibration (PC) Release	04/11/2016