

# WATCH

WORLDWIDE ALLISON TRANSMISSION COMMUNICATION HOTLINE



Revisions to this document are noted  
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WATCH #501, Rev. B  
January, 2016  
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SUBJECT: Allison Transmission 5<sup>th</sup> 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 5<sup>th</sup> 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 5<sup>th</sup> Generation Controls, refer to the Allison 5<sup>th</sup> 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 5<sup>th</sup> Generation Controls:

1000/2000/3000/4000 Series Product Families:

- 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

### **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 4<sup>th</sup> 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<br>2 = ALLISON J1939-BASED WITH INVERTED FORWARD RANGES<br>4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON<br>5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON<br>8 = ALLISON J1939 STRIP 3-BUTTON<br>9 = ALLISON J1939 STRIP 6-BUTTON | 1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY<br>2 = ALLISON J1939-BASED <b>4TH GEN LEVER*</b> WITH INVERTED FORWARD RANGES<br>4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON<br>5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON<br>8 = ALLISON J1939 STRIP 3-BUTTON<br>9 = ALLISON J1939 STRIP 6-BUTTON |
| 19010                   | SHIFT SELECTOR 2                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                       |
|                         | 1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY<br>2 = ALLISON J1939-BASED WITH INVERTED FORWARD RANGES<br>4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON<br>5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON<br>8 = ALLISON J1939 STRIP 3-BUTTON<br>9 = ALLISON J1939 STRIP 6-BUTTON | 1 = ALLISON J1939 BASED LEVER OR PUSHBUTTON WITH BUILT IN DISPLAY<br>2 = ALLISON J1939-BASED <b>4TH GEN LEVER*</b> WITH INVERTED FORWARD RANGES<br>4 = CUSTOMER-SUPPLIED ANALOG STRIP 3-BUTTON<br>5 = CUSTOMER-SUPPLIED ANALOG STRIP 6-BUTTON<br>8 = ALLISON J1939 STRIP 3-BUTTON<br>9 = ALLISON J1939 STRIP 6-BUTTON |
| *Denotes change in Name |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                       |

## Release Plan Timing:

Table 1. 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   |