

#808  
Page 1 of 4

SUBJECT: Allison DOC™ For PC–Service Tool V7.3.0 Update

MODELS AFFECTED: All 1000, 2000, 3000, 4000 Product Families,  
5610, 6610, 8610, 9610 Series,  
5000, 6000, 8000, 9000 Series, and  
MT(B) 600, CL(B)T, V, HT(B) 700 Series Transmissions

AFFECTED SERIAL NUMBERS: All

## **Introduction**

The Allison DOC™ For PC–Service Tool V7.3.0 update will be available in May of 2008, as a “no charge” internet-download for all the Allison DOC™ For PC–Service Tool V7.x.x users. Allison Transmission recommends all V7.x.x users upgrade to V7.3.0, as this new version incorporates new features and important enhancements discussed below.

Because Allison DOC™ updates are cumulative, Allison DOC™ For PC–Service Tool V7.3.0 includes the modifications from all earlier versions of this application. Therefore, Allison DOC™ For PC–Service Tool V7.3.0 can be applied to the original installation of Allison DOC™, version 7.0.0. In order to upgrade the software to V7.3.0, V7.x.x must be already installed on the PC. Earlier versions of the service tool (e.g. V5.0.0, V6.0.0, V6.2.0, etc.) cannot be upgraded to V7.3.0, unless V7.0.0 (CD-based upgrade) is first installed.

Specific enhancements and new features included in V7.3.0, as well as downloading and installation procedures are the main topics addressed in this document. This service information letter is not intended to replace or supersede #1207 and #2507 but to complement them, as users transition to V7.3.0. It is advisable to still refer to #1207, #2507 and the internet ([www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic Tools) for details related to PC platform requirements, training requirements, V7.0.0 CD ordering information, and other pertinent information.

Allison Transmission, Inc.  
Indianapolis, IN 46206-0894

SD / SL5672EN

Copyright 2008 Allison Transmission, Inc. All Rights Reserved.

### **New Features and Enhancements Included in V7.3.0**

The Allison DOC™ For PC–Service Tool V7.3.0 update includes the following new features/functions:

- Includes support for new transmission data parameters recently added to the Allison 4th Generation Controls system for MY09 TCMs or later.
  - o Added three new Engine Torque Management parameters to the SEM/LRTP and Autodetected Information grid:  
**Peak Torque from Advertised Engine Torque Curve (AETC) message, Engine Torque Rating for overrating fault, and Engine Torque Rating for SEM/LRTP requirement**
- Added Overall Gear Requested parameter to the Data Monitor screen for MY09 TCMs or later.
  - o This parameter is the gear that the transmission is trying to obtain. This parameter was specifically created to help identify when engine brake pre-select or a J1939 (tap up/tap down) pre-select is occurring
- New TCM information parameter **Customized Datalink** for TCMs that are MY09 or later
  - o No = The calibration is configured using Allison Transmission's default Datalink configuration
  - o Yes = The reception or broadcast of some Datalink messages in this calibration has been customized by the OEM. Please see calibration summary report for details.
- New Prognostics diagnostic screen for Allison 4th Generation Controls for TCMs that are MY09 or later
  - o This screen displays diagnostic data associated with oil, filter and transmission health service indicators
    - New action request for Service Indicator Lamp Test
    - New action requests to perform oil, filter (1000/2000 Product Families only) and transmission health monitor resets
    - New Prognostic CMCs to enable or disable Prognostic Package, allows prognostic reset by the Service Tool only, reprogram oil life remaining offset, and reprogram filter life remaining offset (1000/2000 Product Families only)
  - o Includes the TRANSHEALTH™ Report feature—**NOTE: This feature only works for Allison 4th Generation Controls system MY09 TCMs or later.** This feature allows the Allison DOC™ For PC–Service Tool V7.3.0 (and later) users (with Reprogramming enabled) to generate reports that contain the following information:
    - Current status of transmission clutches (information read from TCM/ECU)
    - Summary of present Diagnostic Trouble Codes (information read from TCM/ECU)
    - Transmission service performed (technician's input)
    - Service recommendations/comments (technician's input and Service Tool's transmission condition assessment)
    - Vehicle/Transmission Information (technician's input)
    - Distributor/Dealer information (technician's input)
- Updates I/O Information with Input Function Communication Link signal source and signal state information to allow users to effectively and efficiently troubleshoot I/O complaints for MY09 TCMs or later
- Includes support for new I/O functions, transmission data parameters, and CMCs recently added to the Allison 4th Generation Controls for MY09 TCMs or later.
  - Added **Idle Start/Stop Input 1, Idle Start/Stop Input 2** and **Launch in Gear** input functions
  - Added **Driver Select Tap Up/Down** parameter to the Data Monitor screen
  - Added **Engine Brake Alternate Schedule Range** Customer Modifiable Constant
- New TCM information parameter **Communication Protocol**
  - o This parameter identifies the databus that the TCM information is being transmitted across

- New performance complaints for 1000 and 2000 Product Families utilizing Allison 4th Generation Controls
  - TRANSMISSION WILL NOT HOLD RANGE WHEN USING 3-POSITION SWITCH
  - LEAKING FLUID—FILL TUBE AND/OR BREATHER—Cold start
  - LEAKING FLUID—FILL TUBE AND/OR BREATHER—Normal operating temperature
- New Help menu option **What's New**
  - This option explains the new features, functions, and enhancements included in this Allison DOC™ update
  - This .pdf file automatically opens the first time the new application is launched.
- Added the new DPA4 **Plus** Translator Device V2.12 Driver.
- Updates the Data Bus Viewer to support MY09 changes
  - Electronic Retarder Controller 1 (ERC1)—added Source Address 23 (Instrument Cluster #1)
  - Electronic Transmission Controller 7 (ETC7)—added Transmission Service Indicator parameter and Transmission Reverse Gear Shift Inhibit Status parameter
  - Added new TCM messages: RESET, Transmission Mode Labels (TML), J2012, Transmission Fluids 2 (TRF2), PTO Drive Engagement (PTODE)
  - Transmission Control 1 (TC1)—added Transmission Reverse Gear Shift Inhibit Request parameter and Transmission Requested Launch Gear parameter
  - Electronic Brake Controller 1 (EBC1)—added Source Address 23 (Instrument Cluster #1)
  - Cruise Control / Vehicle Speed (CC/VS)—modified bits for cruise control state and PTO state

### **Download and Installation Procedures**

There are three ways to download and install Allison DOC™ For PC—Service Tool V7.3.0:

#### **1. Update Application feature:**

From the Allison DOC™ For PC—Service Tool V7.x.x main menu, select *Software Configuration*. Then, select the *Update Application* tab, click on **Check for update** button, and follow the instructions on the screen. Depending on the internet communication system, this process may take several minutes. Please be patient.

#### **2. Update URL:**

From the software main menu, select *Software Configuration*. Click on the displayed URL (i.e. <http://www.noregon.com/allisondoc/docupdate.html>). Once the Update website is displayed, click on **Download Update** for V7.3.0, and select **Save** option. Select the *Desktop* from the “Save in:” pull-down menu, or any other easy-to-access location on the PC, and save the **DOC730update.exe** file. Once the file is successfully downloaded, make sure to close the Allison DOC™ For PC—Service Tool software, double-click on the **DOC730update.exe** file, and follow the instructions on the screen.

#### **3. Allison Transmission Web site:**

Go to [www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic Tools, and select Updates from the Table of Content. Click on the link to V7.3.0 download. Once the Update Website is displayed, click on the **Download Update** button for V7.3.0, and select **Save** option. Select the *Desktop* from the “Save in:” pull-down menu, or any other easy-to-access location on the PC and save the **DOC7320update.exe** file. Once the file is successfully downloaded, close Allison DOC™, double-click on the **DOC730update.exe** file, and follow the instructions on the screen.

#### **NOTES:**

- 1. Two MS-DOS screens may appear during the update process. It is very important not to interrupt this process until the install is completed.**
- 2. Once the “V7.3.0 has been successfully applied” window is displayed, and you click OK, the Acrobat Reader upgrade process may start. Please follow the instructions on the screen.**

**Acronyms List:**

CMC	— Customer Modifiable Constant
DOC	— Diagnostic Optimized Connection
DPA	— Dearborn Protocol Adapter
ECU	— Electronic Control Unit
I/O	— Input and Output
LRTP	— Low Range Torque Protection
MY	— Model Year
OEM	— Original Equipment Manufacturer
PC	— Personal Computer
PTO	— Power Takeoff
SEM	— Shift Energy Management
TCM	— Transmission Control Module
URL	— Uniform Resource Locator
V	— Version