

SUBJECT: Allison DOC™ For PC–Service Tool V6.0.0

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

AFFECTED SERIAL NUMBERS: All

## **Introduction**

In late August/early September of 2006, Allison Transmission will be releasing Allison DOC™ For PC–Service Tool **V6.0.0** which represents the latest PC diagnostic tool for use with 1000, 2000, 3000, 4000 Product Families, 5610, 6610, 8610, 9610 Series Transmissions, 5000, 6000, 8000, 9000 Series Transmissions, and electronically controlled MT(B) 600, CL(B)T, V, HT(B) 700 Series Transmissions. Allison Transmission recommends that all Allison DOC™ For PC–Service Tool users upgrade to V6.0.0, as this latest version incorporates new features and important enhancements discussed below.

Allison DOC™ For PC–Service Tool V6.0.0 will only be available on a CD which will automatically upgrade any previous version of the tool to V6.0.0. Current registered users of the program will not need to re-register the tool, nor re-enable the reprogramming function.

Allison DOC™ For PC–Service Tool V6.0.0 is considered a “cumulative” upgrade, which means that it includes all features and fixes available in any previously released updates, in addition to new enhancements.

New features, enhancements, essential tool status, purchasing information, PC platform requirements, and translator device support for Allison DOC™ For PC–Service Tool V6.0.0 are some of the topics described in this Service Information Letter.

JFB / SL5434EN

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### **Summary of New Features and Enhancements Included in V6.0.0**

- Includes the latest available versions of the following troubleshooting manuals: TS3989EN/JA, TS3977EN/JA, TS2470EN, TS2973EN, TS3192EN/JA, and TS3353EN.
  - Includes support for two additional languages: Japanese and Spanish.
    - o The language selection occurs during the installation process
    - o Japanese translation encompasses the application's Graphical User Interface and 3 troubleshooting manuals
- NOTE:** Japanese Windows® XP Professional or 2000 is required for the Japanese translation to work. Standard Windows® operating system (in English) with Regional Settings updated to Japanese or the downloadable Windows® XP Japanese Language Pack will not work.
- o Spanish translation only includes the application's Graphical User Interface
- Includes a new dialog box that facilitates the selection of translator devices and communication protocols.
- Includes an Advanced Connectivity Troubleshooting logic that interacts with the user to resolve connectivity problems such as Translator Device not connected, Transmission Controller not responding, etc. The goal of this new feature is to help technicians isolate connectivity problems when the service tool is unable to establish communication with the transmission controller.
- Fixes reprogramming issues occurring in V5.2.0 (and earlier versions), while connected to CEC2 ECUs. This new version of the Allison DOC™ For PC–Service Tool (i.e., V6.0.0 or later version) is required to reprogram CEC2 ECUs.
- Corrects a bug that was causing the tool to display an error message while reprogramming Allison 4<sup>th</sup> Generation Controls I/O wires and functions.
- Eliminates the need of typing the defaulted TCM/ECU Password (i.e. eight zeros or “Allison\_”) while accessing the Reprogramming section in Allison DOC™ For PC–Service Tool.
- Corrects an issue that was causing the tool to display “0” (zero) on the Allison 4<sup>th</sup> Generation Controls I/O Calibration Group Number.
- Updates the Data Bus Viewer to support new J1939 messages/parameters and source addresses.
- Includes a new Update Reminder feature that will help end-users to regularly check for updates on the Allison Transmission website.
- Includes support for new I/O functions, transmission data parameters, CMCs, and DTCs recently added to the Allison 4<sup>th</sup> Generation Controls and CEC2 system.
- Provides fixes to minor issues with the 1000/2000 4<sup>th</sup> Generation Hydraulics Schematic, the Strip Chart printing utility, and GMLAN communication link.
- Updates the TRANSHEALTH™ Reports feature to increase accuracy.
- Corrects an issue that was causing the tool to display transmission data at a very slow rate. This was only occurring on vehicles using J1939 Proprietary ‘A’ messages and equipped with 1000/2000 (Pre-Allison 4<sup>th</sup> Generation Controls) control systems.
- Includes an updated version of the Allison DOC™ For PC–Service Tool User Guide (located at C:\Program Files\Allison Transmission\Allison DOC For PC–Service Tool\DOCS). In addition, the tool includes an expanded Help Topics section.
- Adds six configuration files to the 1000/2000 (Pre-Allison 4<sup>th</sup> Generation Controls) Custom Data Monitor list.

### **Essential Tool Status**

Allison DOC™ For PC–Service Tool V6.0.0 has been classified as an **ESSENTIAL TOOL** for facilities authorized as Maintenance/Overhaul/Service Outlets for one or more of the following transmission families:

- 1000, 2000, 3000, 4000 Product Families
- 5610, 6610, 8610, 9610 Series
- 5000, 6000, 8000, 9000 Series
- MT(B) 648, CL(B)T 700 Series
- V(R) 731(RH) Series
- HT(B) 741, HT 746, HT(B) 748, HT(B) 755(DR), HT(B) 755(CR) Series

Service outlets currently enrolled in the Essential Tool program have received the Essential Tool notification letter, informing about the release of this new version of the service tool. While Allison DOC™ For PC–Service Tool V6.0.0 is an Essential Tool for MT(B) 600, V, and HT(B) 700 Series maintenance or overhaul dealers outlets, the installation CD will not be shipped under the sponsorship of the Essential Tool program subscription service. However, these locations can order the installation CD from SPX/Kent Moore.

### **Purchasing Information**

Allison DOC™ For PC–Service Tool V6.0.0 is available on CD only and can be purchased through SPX/Kent Moore using the following part numbers:

- New User: **J 44950-G**
- Registered Users: **J 44950-UPD6**

For more information (price and availability) please contact SPX/Kent Moore. For contact information, refer to the Translator Device Vendor Information section in this document.

### **Support Information and Updates**

#### ***Support Information:***

Allison DOC™ For PC–Service Tool is shipped with a comprehensive Help Topics section (available from the Help menu), User Guide (C:\Program Files\Allison Transmission\Allison DOC For PC–Service Tool\DOCS), and a laminated tri-fold Job Aid Card (JA3434EN). These sources of information will provide the user with the necessary guidelines to install, utilize, and manipulate the software application.

The Technical Support Help Desk (**1-800-328-6657–US/Canada, 1-507-455-7223–International**) is available to owners of Allison DOC™ For PC–Service Tool to address any topic or issues related to **password activation, application and updates installation, and connectivity (e.g. translator devices, cables, diagnostic connectors, part numbers, etc.) to a vehicle.**

Please contact your company Information Technology (IT) department or refer to the documentation provided with your PC for operating system and other PC related issues. Contact your Allison Transmission Distributor or the Allison Technical Assistance Center (TAC) for transmission data interpretation.

Please check regularly the Allison Transmission website and look for information that could clarify common questions/concerns with respect to the different Allison Transmission diagnostic tools. Specifically, go to **[www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic (Diagnostic) Tools.**

#### ***Updates:***

The Allison DOC™ For PC–Service Tool application includes a feature that allows the user to check for, and download available updates by connecting (via the internet) to a tool update server. Due to the constant ECU/TCM calibration enhancements, it is important to regularly check for Allison DOC™ updates to determine proper tool functionality. Updates can also be obtained from our website: **[www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic**

## **(Diagnostic) Tools | Updates.**

### **Reprogramming Information**

**Allison DOC™ For PC–Service Tool is the only Allison authorized reprogramming tool. No other diagnostic tools shall be used to reprogram Allison Transmission controllers. Refer to #2804A, for detailed information on this topic.**

For new users, or for those who did not enable the Reprogramming function in earlier versions of Allison DOC™ For PC, the Allison DOC™ Diagnostic Tool Training program, or equivalent, has to be completed in order to activate the Reprogramming function. Appropriate proof of certification will need to be submitted to SPX/Kent-Moore (along with the Serial Number provided on the installation CD case) to receive the corresponding authorization password, which will activate the Reprogramming function of the service tool. Registered owners of Allison DOC™ For PC–Service Tool who had previously enabled this function **will not** need to re-authorize it in Allison DOC™ For PC–Service Tool V6.0.0.

To learn more about the course availability, please contact your local Allison Transmission distributor training facility or visit: [www.allisontransmission.com](http://www.allisontransmission.com) | **Service | Training**.

### **PC Platform Definition**

Allison DOC™ For PC–Service Tool V6.0.0 has only been tested and validated on PCs with the following configurations:

- Operating System: Microsoft® Windows® XP Professional or Windows® 2000 (SP4 or later).
- 600MB of free hard drive space is required to install the program. In addition, sufficient free hard drive disk space will be required by the Operating System (after software installation) to run the program.
- Internet connection capability (Internet Explorer 5.0.1 or greater). A broadband Internet connection is highly recommended for receiving updates and file downloads.
- A serial port is still required if connecting to legacy CEC1 controllers or if using the SPX J1850 VPW (Class2) translator device.

	<b>Minimum</b>	<b>Recommended</b>
CPU	Pentium® III 800MHz	Pentium® 4 2.0GHz or greater
RAM	128MB	256MB or greater
One USB port	USB 1.1	USB 2.0
CD-ROM	16x	48x or greater

Error messages, sudden disconnections, and poor performance are some of the results users will experience if Allison DOC™ For PC–Service Tool V6.0.0 is installed on PCs that do not meet one or more of the above specifications.

### **Translator Device Support**

The ***Dearborn DPA4 USB*** is the essential-rated translator device for Allison Transmission service tools and therefore, it is the translator device Allison Transmission recommends to use with Allison DOC™ For PC–Service Tool V6.0.0.

#### **NOTES:**

- Driver: **DR121032** V1.10.0 (or later); Firmware: **V37.146** (or later).
- Allison DOC™ For PC–Service Tool V6.0.0 automatically installs the latest version of the **DR121032** drivers. However, it is recommended to visit the Allison Transmission website to obtain information on the latest version of the **DR121032** drivers for the DPA4 USB. The **DG121032** drivers (available on the J 47943 DPA4 installation CD) will **not** work with any of the Allison Transmission service tools.
- A Quick Reference Guide for this device can be downloaded from: [www.allisontransmission.com](http://www.allisontransmission.com) | **Service | Electronic (Diagnostic) Tools | Support**. This document contains detailed information on how to install and use the drivers, basic troubleshooting steps, and other relevant information.
- Supported Communication Protocols: J1939, J1708/J1587, and GMLAN. It **does not** support the J1850 communication protocol.

- For availability contact: SPX Corporation (Kent-Moore Service Solutions); P/N (Kit): **J 47943**

Allison DOC™ For PC–Service Tool V6.0.0 was also tested and validated with the following translator devices:

- ***NEXIQ MagiKey® Parallel Port Data Module (PDM)***

**NOTES:**

- Driver: V1.0 Universal (or later).
- The NEXIQ MagiKey® PDM requires the user to manually install the driver set which can be found either on the Allison DOC™ For PC–Service Tool V6.0.0 installation CD, under the “NEXIQ Universal Drivers” folder, or on NEXIQ’s website: [www.nexiq.com](http://www.nexiq.com) | Support | Download section.
- Supported Communication Protocols: J1708/J1587 and J1939.
- For availability contact: SPX Corporation (Kent-Moore Service Solutions) P/N (Kit): **J 42660**; or NEXIQ Technologies. A Snap-On, Company P/N (Kit): **126032**

- ***Noregon Systems Data Link Adapter (DLA)***

**NOTES:**

- Driver: V2.2.6 (or later)
- The DLA requires the user to manually install the driver set which can be found on the Allison DOC™ For PC–Service Tool V6.0.0 installation CD, under the “Noregon DLA v2.2.6” folder.
- Supported Communication Protocols: J1708/J1587 and J1939.
- For availability contact Noregon Systems, Item (Kit): **Data Link Adapter Kit**

- ***B&B Electronics J1708D15 Adapter***

**NOTES:**

- The B&B Electronics J1708D15 translator device **only** supports **J1708/J1587** communication protocol, and therefore it is only suitable for the following Allison Transmission control systems: WTEC II, WTEC III, and CEC2.
- Supported Communication Protocols: J1708/J1587.
- The B&B Electronics device requires the user to install an additional driver set found either on the Allison DOC™ For PC–Service Tool V6.0.0 installation CD, under the “Noregon RP1210A API” folder, or on our website: [www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic (Diagnostic) Tools | Translator Devices -> B&B J1708D15.
- This device should not be used (under any circumstances) to reprogram ECUs.**
- For availability contact: B&B Electronics, Item: **J1708D15**

- ***SPX Adapter J1850-VPW***

**NOTES:**

- The SPX J1850-VPW only supports **J1850** communication protocol, and therefore it is only suitable for vehicles equipped with a J1850 communication link, such as Pre-Allison 4<sup>th</sup> Generation Controls GM Pickup Trucks (i.e. Chevrolet Silverado HD or GMC Sierra HD pickups), and Pre-Allison 4<sup>th</sup> Generation Controls GMT560.
- Allison DOC™ For PC–Service Tool V6.0.0 automatically installs the drivers for this device.
- Supported Communication Protocols: J1850.

- For those users with PCs that do not have serial ports, a “**USB-To-Serial**” cable has been approved to use with this adapter. This USB-To-Serial cable can be purchased at RadioShack® (Model & Catalog #: 26-183). For more information, please refer to the “Can I use the SPX J1850-vpw translator device with a USB-To Serial cable?” FAQ, located on our website: [www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic (Diagnostic) Tools | Support -> FAQ.
- Refer to SIL **14-1K2K-06** for specific information on when this translator device should be used.
- For availability contact SPX Corporation (Kent-Moore Service Solutions), Kit P/N: **J 44652**
- **Allison Transmission CEC Translator Device**
  - NOTES:**
  - The Allison Transmission CEC Translator Device is the only translator device that supports transmissions equipped with CEC1 controllers.
  - The drivers for the Allison Transmission CEC Translator Device can be installed either from the Allison DOC™ For PC–Service Tool V6.0.0 installation CD, located in the “Noregon RP1210A API” folder, or from our website: [www.allisontransmission.com](http://www.allisontransmission.com) | Service | Electronic (Diagnostic) Tools | Translator Devices -> Allison Transmission CEC Translator Device.
  - Supported Communication Protocols: Allison Proprietary CEC1 communication protocol.
  - For availability contact SPX Corporation (Kent-Moore Service Solutions) P/N: **J 47134**, or SGI, Inc. P/N: **CD3723EN**
- **Softing CANCard2 (PCMCIA), Softing CAN-AC2-PCI (PCI bus), and Softing CANCard2 (USB)**
  - NOTES:**
  - In addition to the Softing native drivers, the user must install the RP1210A-compliant drivers in order to make any of these Softing CAN devices work with Allison DOC™ For PC–Service Tool V6.0.0. The RP1210A-compliant drivers are automatically installed with Allison DOC™ For PC–Service Tool V6.0.0 and can also be obtained from the Allison Transmission Extranet: Service | Allison TCM Reflash -> Softing CANCard2 (PCMCIA) Devices Drivers (For DOC USE ONLY).
  - Supported Communication Protocols: J1939.
  - Softing CAN devices can only be used on vehicles/transmission/TCM systems that communicate to the Allison DOC™ For PC–Service Tool through the J1939 data link. This translator device cannot be used for J1708/J1587, GMLAN, or J1850 communications. Consequently, these Softing CAN devices can only be used to connect Allison DOC For PC–Service Tool V6.0.0 with Allison 4<sup>th</sup> Generation Controls systems, and/or 1000/2000 (Pre-Allison 4<sup>th</sup> Generation Controls) via J1939.
  - A ‘Deutsch 9-pin connector (SAE J1939-13) to a DB9 (socket)’ cable is required to connect the Softing CAN devices to the vehicle diagnostic connector. This cable can be purchased from SPX Corporation (Kent-Moore Service Solutions) P/N: **J 46710**
  - For availability contact Noregon Systems P/N: **N 00001**, or Softing North America, Inc.

**Translator Device Vendor Information**

**SPX Corporation (Kent-Moore Service Solutions)**

28635 Mound Road  
Warren, MI 48092  
Phone: 1-800-328-6657  
Fax: 1-800-578-7375

**SGL, Inc.**

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**Noregon Systems**

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**B&B Electronics**

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E-mail: www.vehicleinterface.com

**Softing North America, Inc.**

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**Acronyms List:**

DOC	— Diagnostic Optimized Connection
DPA	— Dearborn Protocol Adapter
DTC	— Diagnostic Trouble Code
GM	— General Motors
GMLAN	— General Motors in vehicle Local Area Network
GUI	— Graphical User Interface
I/O	— Input and Output
MY	— Model Year
OBD	— On-Board Diagnostics
PC	— Personal Computer
P/N	— Part Number
SIL	— Service Information Letter
TCM	— Transmission Control Module
USB	— Universal Serial Bus