






## Quick Reference Guide Allison DOC® Premium



### WARNINGS AND NOTES

-  **WARNING:** To avoid personal injury, the operator of the vehicle must not use or read the service tool while the vehicle is moving. Doing so can result in loss of vehicle control, which can cause vehicle damage and personal injury.
-  **WARNING:** Only personnel other than the vehicle operator must use the service tool.
-  **WARNING:** The vehicle operator must maintain control of the vehicle while an assistant performs the diagnostic evaluations.
-  **NOTE:** Allison DOC® Premium users must have a basic working knowledge of and Windows10® Operating System(s).
-  **NOTE:** During TCM/ECU reprogramming, make sure the transmission controller is supplied with continuous power and the ignition is on at all times.



### SYSTEM REQUIREMENTS

- 1**
  - Windows 10®
  - 20GB hard drive (40GB or greater recommended)
  - At least 4 GB of free space is required to install the program from a DVD; 3 GB required for the downloadable package (after software installation, the operating system requires sufficient free hard disk space to run the program)
  - Pentium® IV class processor 2 GHz or higher CPU (2.0 GHz recommended)
  - 2GB of RAM system memory (4 GB or greater recommended for Windows 10®)
  - Monitor capable of supporting a resolution of 1280x768 or higher
  - One available USB port—USB 2.0 or better
  - Internet broadband connection capability (Internet Explorer® 8 or greater) for activation/reactivation, receiving updates and file downloads

**NOTE:** Refer to the Readme.txt file for more information.

**NOTE:** Error messages, sudden disconnections, and poor performance are some of the results users experience if the Allison DOC® Premium is installed on a PC that does not meet the above specifications.

### INSTALLING THE ALLISON DOC® PREMIUM SOFTWARE

- 2**
  -  **NOTE:** If you have the last version of Allison DOC® Premium on your PC, you will not be required to uninstall it. The new installation automatically upgrades the application. Your application can be automatically activated if your PC is connected to the Internet.
  -  **NOTE:** *Full Administrator privileges are required to install and update Allison DOC® Premium.*
1. Locate the installation media:
  - DVD: insert the Allison DOC® Premium DVD into your DVD-ROM drive. If the installation process does not begin momentarily, select Start -> Run from the task bar. Click Browse, locate the Setup.exe file on the installation DVD, and click OK.
  - USB: insert the Allison DOC® Premium USB flash drive into an available USB port. If the installation process does not begin momentarily, select Start -> Run from the task bar. Click Browse, locate the Setup.exe file on the USB flash drive, and click OK.
  - Downloaded File: locate the Allison DOC® Premium installation file that was downloaded and saved to your computer. Double-click this file to begin the installation process.
2. Follow On-Screen instructions, restarting your PC when instructed.
3. Finally, the Installation Complete window displays to indicate that the installation has completed successfully. Click the FINISH button to exit the setup process.

### CONNECTING THE SERVICE TOOL TO THE VEHICLE


**3** The Connection Diagram on the back illustrates all the components you need to establish communication with the Transmission Control Module (TCM). Optional connection diagrams are also on the back for J1850, GMLAN and CEC1 datalink communications.

Please see the following basic required components:



1. The Allison DOC® Premium Installation program
2. The Kit for Noregon USB Translator 2.0 - All Allison Products (P/N: 97004) or compatible RP1210C translator device
3. OBDII cables are required for GMLAN and J1850 communications and an OBDI cable is required for CEC transmissions. These cables are not included in the Kit for Noregon USB Translator - All Allison Products, but are available for purchase from Noregon Systems, Inc.

Refer to the back for more information.

 **NOTE:** Drivers for commonly used translator devices are copied to C:\Users\Public\Documents\Allison Transmission\Allison DOC For PC - Service Tool\Miscellaneous.

 **NOTE:** For more information go to [www.allisontransmission.com](http://www.allisontransmission.com) -> Service -> Electronic Tools -> Translator Devices.

### CONNECTING TO THE TCM/ECU

1. From the Warnings window of the Allison DOC® Premium, click the  button. The Connect/Disconnect window appears.
2. Select the Transmission Type from the options displayed.
3. Check the SmartConnect box if using the Noregon Translator, Nexiq USB-Link™ 2 or Dearborn DPA4 / DPA4 Plus.
4. Click the  button.
5. Upon a successful connection, the DTC and General Information screen displays.


### BASIC CONNECTIVITY TROUBLESHOOTING

- Make sure the ignition is on.
- Make sure all of the cables and connectors are in good condition.
- Make sure that you have selected the correct transmission type.
- Make sure that your PC meets all of the platform requirements to run the Allison DOC® Premium.
- Disconnect then reconnect the translator device from both the PC and the diagnostic connector.
- Make sure you have the correct translator device driver version installed on your PC. Refer to [www.allisontransmission.com](http://www.allisontransmission.com) -> Service -> Electronic Tools -> Translator Devices, for more information
- Close the application, disconnect the translator device from the PC, reboot the PC and try to reconnect.
- Use the Databus Viewer feature to verify correct adapter installation and cabling.

### ACCESS TO DIAGNOSTIC SCREENS

After connection, you can navigate through the different diagnostic screens using vertical tool bar at the left of the screen. You can select:

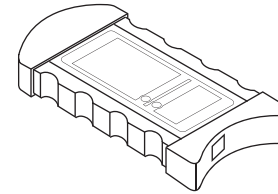
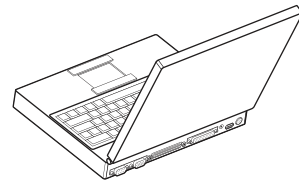
- DTC and General Info.—Default or “Home” screen after connection. Contains DTC information with links to troubleshooting manuals, basic TCM and transmission data parameters, shift inhibits, and various command buttons related to TCM DTCs.
- Data Monitor—Displays dynamic transmission data items (diagnostic data), shift inhibits, and I/O status information.
- Custom Data Monitor—Allows the user to select specific diagnostic data.
- Graphical View—Allows the user to view transmission parameters in a graphical manner.
- Custom Graphics Monitor—Allows the user to select specific transmission parameters to view in a graphical manner.
- Strip Chart—Displays user selectable transmission parameters (up to 15 parameters) on a graphical strip chart.
- Prognostics—Displays information stored on the TCM related to oil life, filter life, and data for use in predicting transmission health for some Allison 4<sup>th</sup> / 5<sup>th</sup> / 6<sup>th</sup> Gen Controls.
- Calibration Information—Provides information related to current CMC settings, I/O status information, SEM/LRTP information, Autodetect information, and other TCM/ECU calibration information.

 **NOTE:** For more information, refer to the Allison DOC® Premium User Guide (GN7588EN).



# Allison DOC® Premium Connection Diagrams

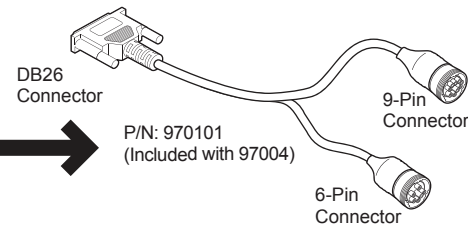
## 97004 Kit for Noregon USB Translator 2.0 - All Allison Products



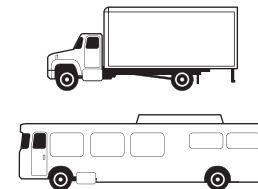
**NOTE: Diagrams depicting cables do not represent actual lengths.**

Noregon USB Translator - All Allison Products pictured  
P/N: 97004

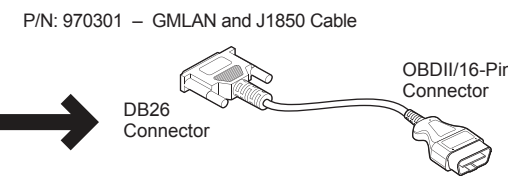
### Use with Noregon Translator Device



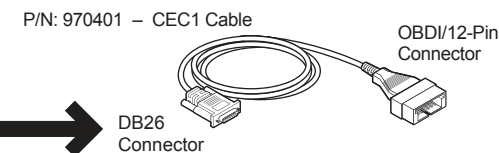
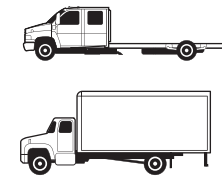
P/N: 970101  
(Included with 97004)



### Optional Vehicle Interface Adapter Cables for use with the Noregon Translator Device



P/N: 970301 – GMLAN and J1850 Cable



P/N: 970401 – CEC1 Cable



**For replacement cables for alternative translators contact Bosch Automotive Service Solutions in the US and Canada at 866-621-2128 or internationally at 507-455-7223 or 800-345-2233. Please refer to JA3434EN for part numbers and connection information.**



# Allison DOC® Premium Connection Settings



The following chart is an overview of protocols used by transmission type for those users who do not select the 'SmartConnect' option. When using some approved adapters, 'SmartConnect' will detect the correct protocol for the transmission.

Transmission Type	Supported Systems	Protocols
1000/2000 Product Families	1000/2000 Series 5 <sup>th</sup> / 6 <sup>th</sup> Generation Controls 1000/2000 Series 4 <sup>th</sup> Generation Controls Series Pre-Allison 4 <sup>th</sup> Generation Controls	CAN J1939/GMLAN J1939/J1850
3000/4000 Product Families	3000/4000 Series 5 <sup>th</sup> / 6 <sup>th</sup> Generation Controls 3000/4000 Series 4 <sup>th</sup> Generation Controls 3000/4000 Series Pre-Allison 4 <sup>th</sup> Generation Controls (WTEC II, WTEC III)	CAN J1939/GMLAN J1708
CEC5	Off-Highway, Allison 5 <sup>th</sup>	CAN
CEC3	Off-Highway, Allison 4 <sup>th</sup> Generation Controls	J1939/GMLAN
CEC2	Off-Highway, Pre-4 <sup>th</sup>	J1708
CEC1	On-Highway, Off-Highway	Proprietary
TC10 Product Family	TC10 5 <sup>th</sup> Generation Controls	CAN



## Ordering and Support



To order on the web, visit: <https://allisonstore.noregon.com>

For support: E-mail: [support@noregon.com](mailto:support@noregon.com)  
 Phone: 877-659-6913 (U.S. and Canada)  
 336-970-5534 (International)  
 Fax: 310-300-1821  
 Web Store: <https://allisonstore.noregon.com>

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**Note:** A connection diagram is included with the Allison DOC® Premium documentation. To order laminated Job Aid cards, visit [www.allisontransmissionpublications.com](http://www.allisontransmissionpublications.com). Dearborn or Nexiq translator P/N: JA3434EN — Noregon USB Translator P/N: JA6018EN