

OPERATOR'S GUIDE



DIAG+

Gen3

**TRANSPORT
EQUIPMENT
AUSTRALIA**

Haldex

Innovative Vehicle Solutions

Notes on the use of this manual

This manual has been designed to assist personnel in satisfactory installation and operation of Haldex DIAG+. It is expected that this manual will be in possession of the appropriate person throughout their 'training' and 'experience' and that the manual will be used as a teaching aid following supervision of a Haldex engineer or a reminder of the correct procedure for operating Haldex DIAG+ software.

- › Use appropriate spare-parts documentation when obtaining spare parts
- › Use only genuine Haldex parts in repairs
- › Due to continuous development the right is reserved to alter the specification without notice
- › No legal rights can be derived from the contents of the manual
- › Duplication, translation and reprinting are prohibited without permission from Haldex Brake Products

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DIAG+ INSTALLATION

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Introduction

With DIAG+ you can use a standard personal computer to read and delete diagnostic codes, program vehicle parameters and end of line test (EOLT) the EBS, U-ABS and ITCM. The USB dongle allows communications between a standard PC and an ECU. Connections to the USB dongle are made through a cable connecting to a USB port on the computer and another cable connecting the diagnostic interface to the ECU. The vehicle parameter data is stored inside the ECU. It will remain intact even after electrical power is removed from the EBS, U-ABS and ITCM.

Note: The USB dongle is different to the RS232 interface pods as used on earlier systems.

Installation

Minimum system specification

The minimum PC or laptop specification to run the DIAG+ package is as follows:

Processor - No particular requirement
RAM - 256 megabytes
Hard drive - 30 megabytes free
MS Windows XP, 7, 8 and 10

In addition to the above, a USB port is required to connect to the USB dongle.

Downloading DIAG+

The latest DIAG+ version software can be downloaded from the Findex section of the Haldex web site.

To download follow:

› Go to <http://www.haldex.com/>

Click on: European - English (top right hand corner)

Click on: Trailer application guide (bottom Right hand corner)

Click on: Diagnostic Software (top right hand corner)

Click on: Download Software

Click on: Diag+ 6.19

Download software

Link: <http://xyqom.org/haldex/trailerguide/index.php?id=228>

Follow installation procedure

Installing the software

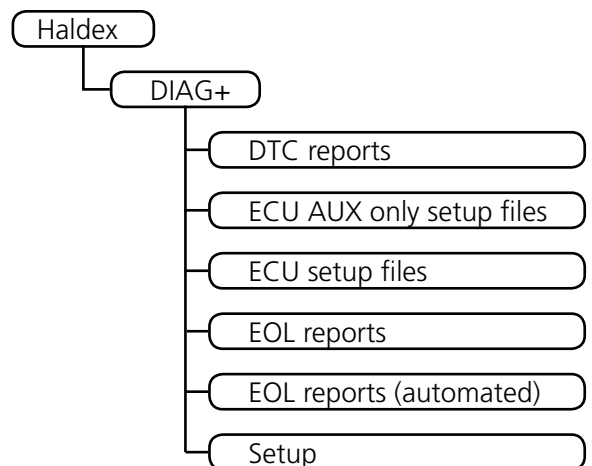
The software must be installed before the connection of the USB dongle.

- › Switch “on” your machine and enter into the desktop mode of your PC, then run the downloaded DIAG+ setup file DIAG+ 6.19 ROW.msi
- › Follow the on screen instructions to install the program
- › Click on “next” to proceed
- › Read the information and click on “next” to proceed
- › Choose your preferred options, and click on “next” to proceed
- › Click on “next” to proceed
- › Program now installing on the PC
- › Installation now completed
- › Click on “close” to exit

In addition to the application folders, the following folder structure is added to your computer.

On Windows 7 the Haldex folder will be located in
C:\Users\Public\Public Documents.

Note: This location will vary on other operating systems.



Installing the hardware

The DIAG+ interface kit is comprised of the USB dongle, together with its connecting cables and a transit case.

Part number	Description	
950 800 912	Diagnostic cable kit	Kit contents:
814 036 001		ECU / pc interface cable (6.5 m)
815 018 001		EB+ ISO diagnostic cable
814 011 001		EB+ SOV / pc interface cable (6.5 m)
042 623 719		Transit case



Part number	Description	
950 800 909	Interface kit	Kit contents:
815 023 001		USB pc interface (DIAG+)
042 707 309		USB cable



The dongle is provided with a multi function LED to confirm correct function of the unit as follows:

Orange: Indicates connection to USB port

Red: Indicates connection to USB and EBS / U-ABS

Green: Indicates data is being transmitted

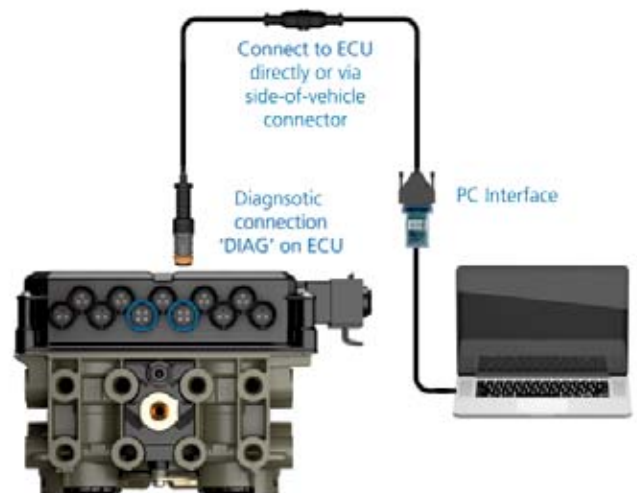
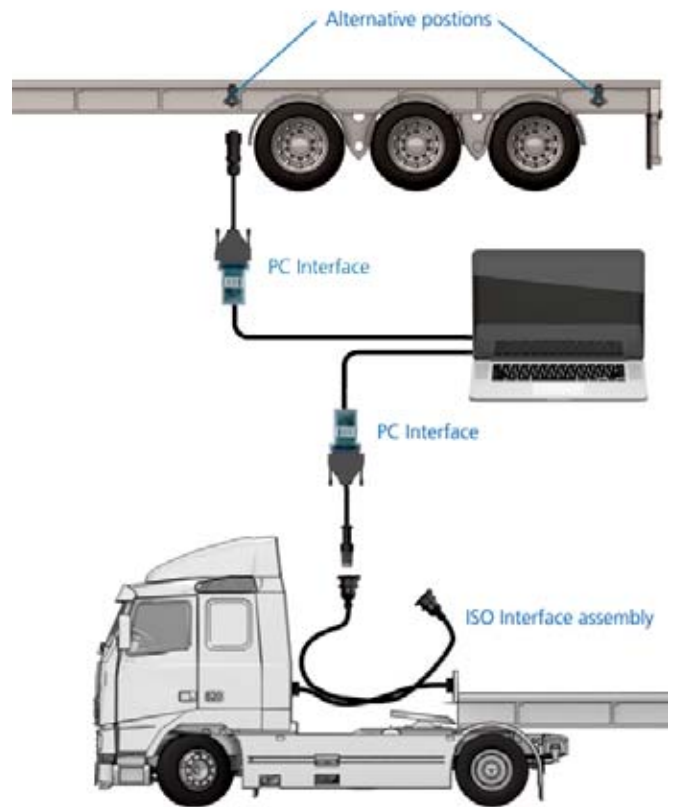
To access the EBS and U-ABS ECU via side-of-vehicle connector, connect the USB cable into a USB port on the back of your PC or laptop.

Use the ISO interface cable assembly 815018001 to access the EBS ECU by using ISO 7638 -7 pin connector (which uses pin 6 and 7 as a CAN data bus), connect the USB cable into a USB port on the back of your PC or laptop.

To access the ECU directly, connect the USB cable into a USB port on the back of your PC or laptop.

Power the EBS and U-ABS from an external 24 V dc supply (i.e. correctly rectified and smoothed) or a tractor unit. The LED light on the USB dongle should now be on, coloured red.

If it is not, please check your connections and try again.



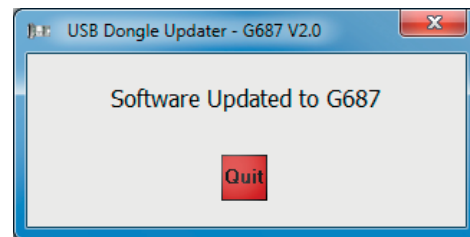
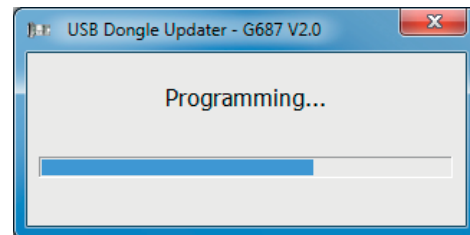
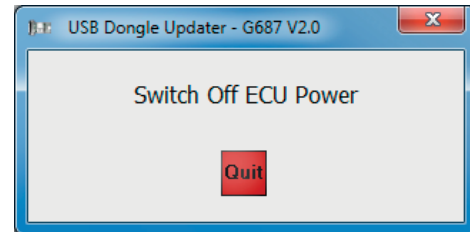
Updating the USB dongle software

The USB dongle software can be updated to the latest revision.

The required files have been downloaded along with the DIAG+ software and can be found here:

C:\Program Files\Common Files\Haldex\USB

- › Run the downloaded dongle setup file
USB_DONGLE_Flash_Updater_G687_V2_0.exe
- › Follow the on screen instructions to install the program
- › Switch "off" the power to the ECU
- › Switch "on" the power to the ECU
- › Software updating
- › Software update now complete



Updating the USB dongle driver

The USB dongle driver software can be updated to the latest revision.

The required files have been downloaded along with the DIAG+ software and can be found here:

C:\Program Files\Common Files\Haldex\USB

- › Run the downloaded dongle driver setup file
CDM v2.12.00 WHQL Certified.exe
- › Follow the on screen instructions to install the program
- › Accept the agreement, click on "next" to proceed
- › Software updating
- › Software update now complete
- › Click on "finish" to proceed
- › Restart your computer to apply these changes



Starting DIAG+

Click on the DIAG+ short cut to start the programme.

The user must read and accept the warning screen to open the DIAG+ programme.

- › Click on to accept and start DIAG+
- › Click on to exit without starting
- › DIAG+ software will now open
- › Now connect the USB dongle to the PC



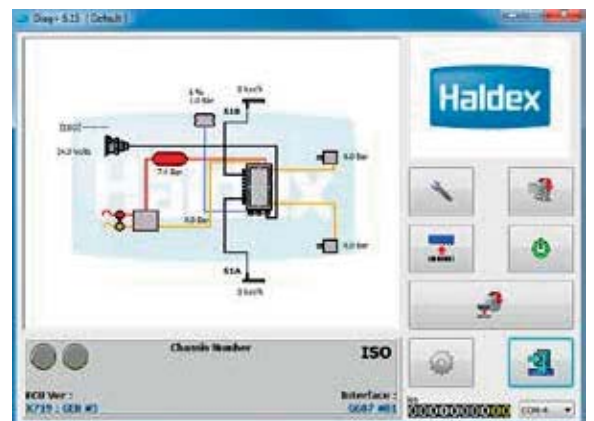
The dongle is provided with a multi function LED to confirm correct function of the unit as follows:

- Orange: Indicates connection to USB port
- Red: Indicates connection to USB and EBS / U-ABS
- Green: Indicates data is being transmitted

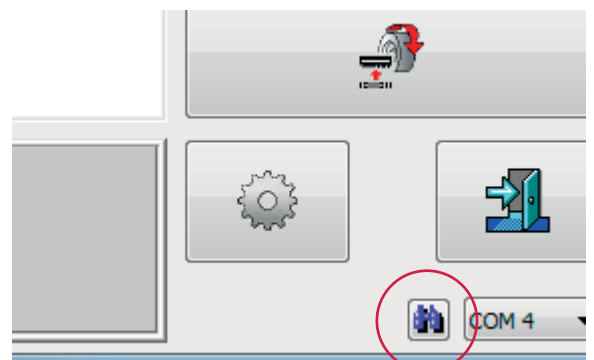


Power up the ECU. During the self check procedure the system displays the following functions: the trailer EBS / U-ABS warning light comes 'on' and stays 'on'. One audible cycle is produced by the EPRV's (EBS valves).

At the same time the LED on the USB dongle will illuminate 'red / green' to show that it is communicating with the ECU. The EBS / U-ABS layout schematic should now be showing in the browser window.



If no EBS / U-ABS layout is shown, click on the binoculars to auto search for the correct PC connection port.



Options

The DIAG+ options can be selected by clicking on the button.

When no ECU is connected, the DIAG+ software can be configured for any of the following:

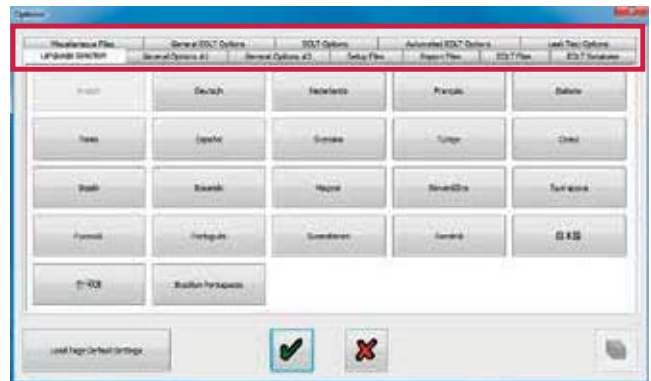
- › EBS
- › U-ABS
- › ITCM

Note: the software will auto detect which configuration




The DIAG+ software can be configured by the user, using the available option tabs and menu's.

- › Language
- › General options
- › Miscellaneous / setup / report / EOLT / files
- › EOLT options
- › EOLT database
- › Leak test options




Language selection


The DIAG+ operation language can be selected by clicking on the  button.

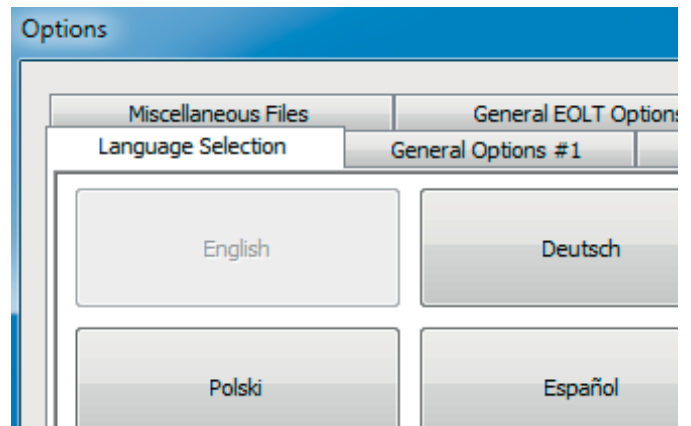
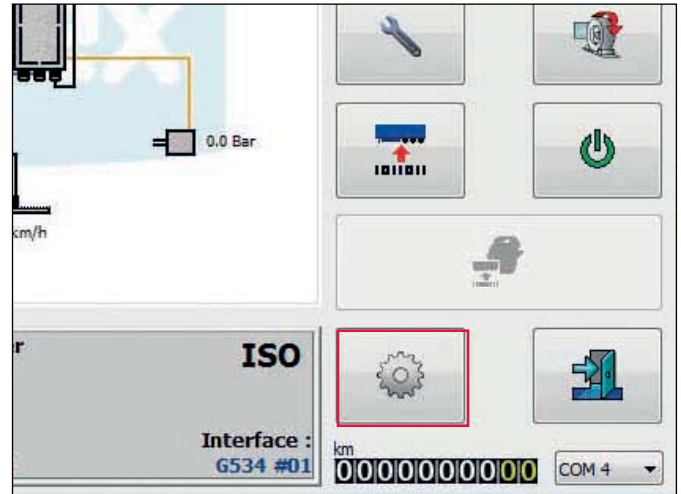
Click on the language selection tab

Select the language from the displayed options

Click on the required language button to change to the new language

Click on the  button to return to the main menu without changing the current language.

Click on the  button to change to the selected language and return to the main menu.



Troubleshooting

Screen 1

On appearance of this screen the following areas need to be checked:

- › The receive and transmit buffers have been disabled on your PC. Check the com port properties
- › Another program that uses the com port is open. Check the bottom of your PC screen and close any other programs

Screen 2

On appearance of this screen the following areas need to be checked:

- › Connections loose. Check that each plug is firmly connected
- › LED light 'off' on USB dongle. Check power supply to the ECU from the ISO 7638 (or similar 24 V supply) is 'on'

Screen 3

On appearance of this screen the system is still in system supplier mode (i.e. a command was requested within 10 secs of clicking the reset button).

- › Switch power 'off' and 'on' to the trailer

