

TOOLBOX PLUS™

DIAGNOSTIC SOFTWARE - USER GUIDE



MM19047

WABCO

Edition 1
Version 2 (08.2020)
MM19047 (en)

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GENERAL INFORMATION

General Information

Symbols Used in this Document

DANGER

Description of an immediate situation which will result in irreversible injury or death if the warning is ignored.

WARNING

Description of a possible situation which may result in irreversible injury or death if the warning is ignored.

CAUTION

Description of a possible situation which may result in irreversible injury if the warning is ignored.

NOTICE

Description of a possible situation which may result in material damage if the warning is ignored.



Important information, notices and/or tips



Reference to information on the Internet

GENERAL INFORMATION

How to Obtain Additional Maintenance, Service and Product Information

If you have any questions about the material covered in this publication, or for more information about the WABCO product line, please contact the WABCO Customer Care Center at 855-228-3203, by email at wnacustomercenter@wabco-auto.com, or visit our website: www.wabco-na.com.

Refer to the Society of Automotive Engineers (SAE) website to find all current SAE documents and standards applicable to WABCO products (such as SAE J447 and SAE J908 at www.sae.org).

Refer to the National Highway Traffic Safety Administration (NHTSA) website to find all current documents referenced in the manual at www.nhtsa.gov.

WABCO TOOLBOX PLUS™ Software

TOOLBOX PLUS™ Software provides PC diagnostics for WABCO products and can be purchased and downloaded from <https://wabco.snapon.com/>.

This Software User's Guide, MM19047 can be obtained by visiting www.wabco-na.com/literature.

WABCO ACADEMY



www.wabco-academy.com

WABCO Online Product Catalog



www.wabco-customercenter.com/

Your Direct Contact to WABCO

WABCO North America LLC
WABCO USA LLC
1220 Pacific Drive
Auburn Hills, MI 48326
Customer Care Center: (855) 228-3203
www.wabco-na.com

SAFETY INFORMATION

Safety Information

Provisions for a safe work environment

- Only trained and qualified automotive technicians may carry out work on the vehicle.
- Read this publication carefully.
- Follow all warnings, notices and instructions to avoid personal injury and property damage.
- Always abide by the vehicle manufacturer's specifications and instructions.
- Observe all accident regulations of the respective company as well as regional and national regulations.
- The workplace should be dry, sufficiently lit and ventilated.
- Use personal protective equipment if required (safety shoes, protective goggles, respiratory protection and ear protectors).

Read and observe all Danger, Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

WARNING

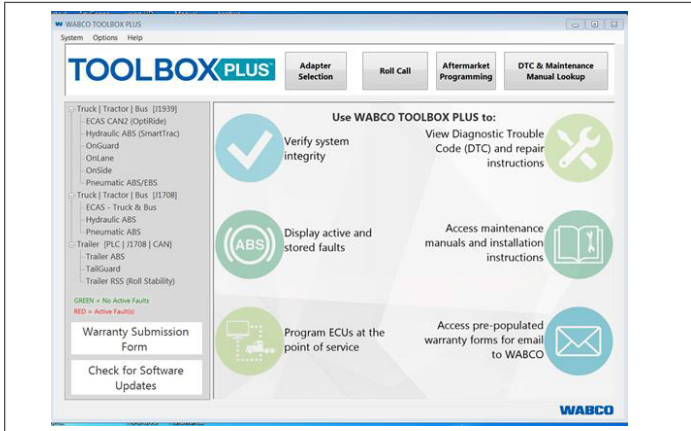
To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

WARNING

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fall over. Serious personal injury and damage to components can result.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

TOOLBOX PLUS™



TOOLBOX PLUS™ provides computer-based diagnostics for WABCO electronic vehicle control system products. The program displays information for the vehicle systems, displays active and stored diagnostic trouble codes, repair instructions and activates system components to verify system integrity.



For complete WABCO maintenance information, refer to the appropriate maintenance manual by visiting our Literature Center at www.wabco-na.com/literature

TOOLBOX PLUS™ SYSTEM REQUIREMENTS

Prior to downloading TOOLBOX PLUS™, please verify that your computer and hardware meet the minimum requirements outlined in the System Requirements Guide below.

Component	Requirement
Computer and Processor	PC: 1 gigahertz (GHz) or faster x32-bit or x64-bit processor
Memory	PC: 1 GB RAM (32-bit); 2 GB RAM (64-bit)
Hard Disk	PC: 300 MB of available disk space
Display	Standard VGA graphics adapter 800 x 600 screen resolution or higher
Operating System	PC: Windows 7, Windows 8, Windows 10
Framework	PC: Microsoft.NET 4.8 or later

Hardware Interface Requirements: Vehicle Diagnostic Adapter
Macintosh and Linux operating systems are not supported.
Windows® is a registered trademark of the Microsoft Corporation.

TOOLBOX PLUS™ SOFTWARE INSTALLATION

To ensure users have access to the most up to date diagnostic information on WABCO products and maintain full functionality of TOOLBOX PLUS™ software, the computer where the TOOLBOX PLUS™ software is installed must be connected to the Internet every 90 days. If the computer is not connected to the internet every 90 days, TOOLBOX PLUS™ will stop working. Please contact Snap-On at (800) 639- 6774 to reactivate your software.

When your TOOLBOX PLUS™ subscription is nearing renewal, the software provides automatic notifications of the approaching renewal deadline beginning 60 days before expiration. If a user allows the subscription to expire, the TOOLBOX PLUS™ application will stop working. Please contact Snap-On at (800) 639- 6774 to reactivate your software.

When installing TOOLBOX PLUS™ it is highly recommended you close or disable any other currently running programs including anti-virus. Some operating systems or corporate policies restrict the installation of software to users without full administrative rights. Check with your IT department to verify that you have the appropriate administrative rights to continue with the Installation. For Windows 7, 8, or 10, ensure the following:

1. The person installing the adapter drivers and TOOLBOX PLUS™ Software must be logged in as “Administrator”.
2. The adapter drivers and TOOLBOX PLUS™ must be installed on the machine for “ALL USERS”, and not just the current user.
3. Answer the prompts that appear during setup. TOOLBOX PLUS™ will acknowledge a successful installation and automatically open the software registration process. When prompted to select between Save and Run, select the Save option. Save the file to an easy-to-access area on the computer, such as the desktop.
4. Do not attempt to install the software until the download is completed.



TOOLBOX PLUS™ should be installed under “Administrator” with full rights for “All Users”. Please check with your IT department. Some PCs may require the temporary disabling of Windows UAC (User Access Control) for the downloading and installation of TOOLBOX PLUS™ software. Temporarily disabling UAC settings may be required to resolve certain download and installation issues related to individual PC configurations prior to TOOLBOX PLUS™ software installation.

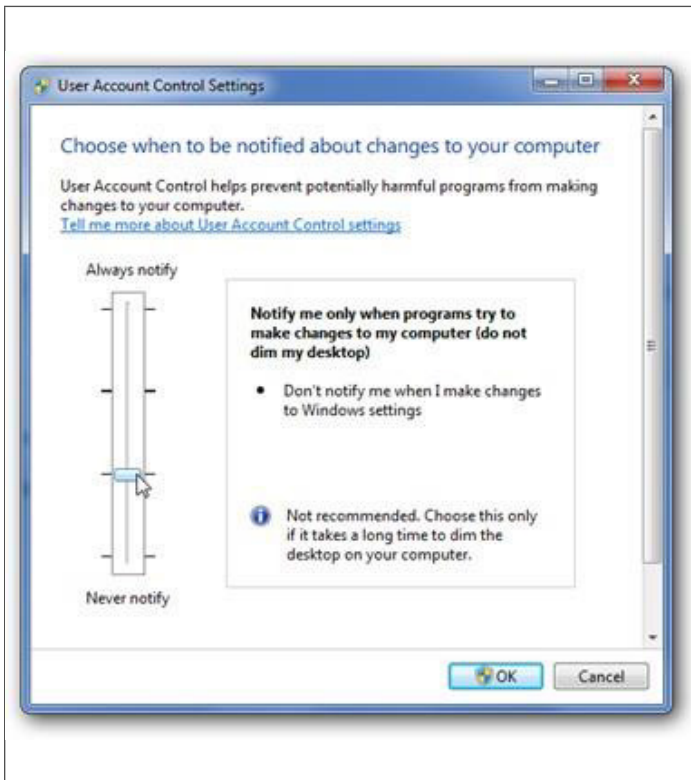
TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

DISABLING WINDOWS UAC (User Access Control)

Disabling UAC on Windows 7, 8, 10

Type “UAC” into the Start Menu Control Panel search box. Select “Change User Account Control Settings” or simply press the Enter key.

In the dialogue box that appears, drag the slider down to the “Never Notify” position and then select OK.



TOOLBOX PLUS™ INSTALLATION

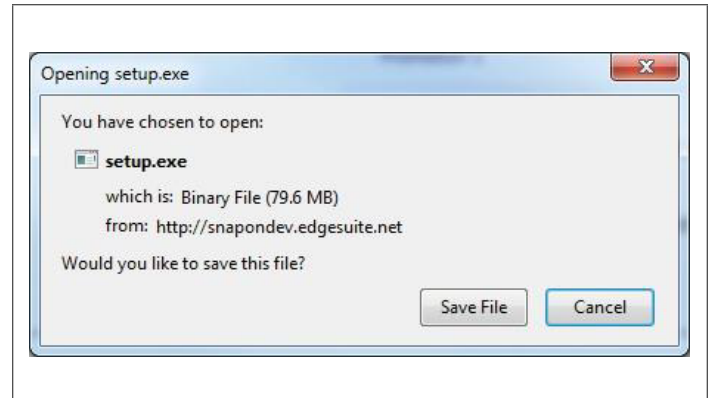
Install TOOLBOX PLUS™ Software

1. After completing your purchase from the wabco.snapon.com website, click on the blue product key number to start the software download.

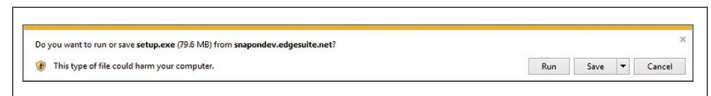
Subscriptions for MB-100-147998			
Product Number	Registration Key	Equipment	Start/End
2463035010 (1)	885D-UJC4K-JE4W Serial Number: 22540		14-Feb-2020 14-Feb-2021

2. When prompted to select between “Save” and Run,” select the “Save” option and save the file to your desktop.

In Firefox, you will see this message:

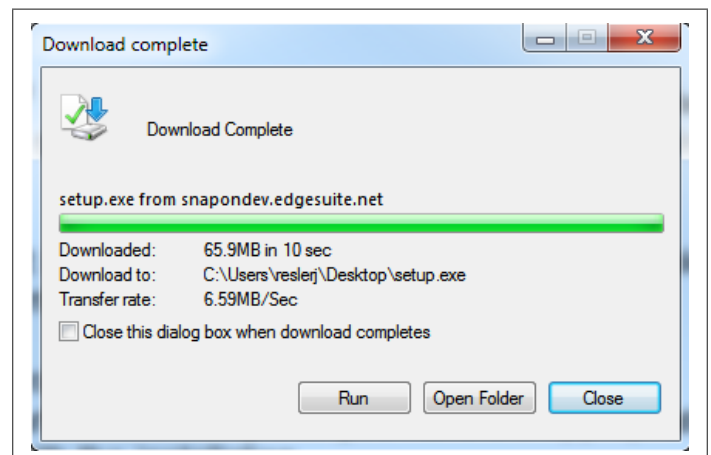


In Internet Explorer, you will see this message:



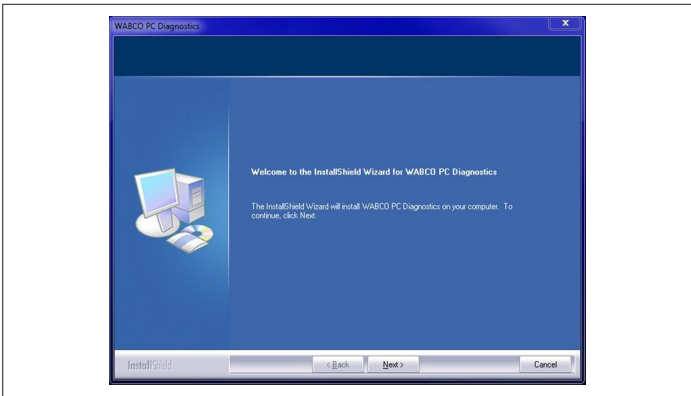
Save the file to the computers such as the desktop

3. After the files are saved, open the folder. Select “Run” which begins the setup/installation process



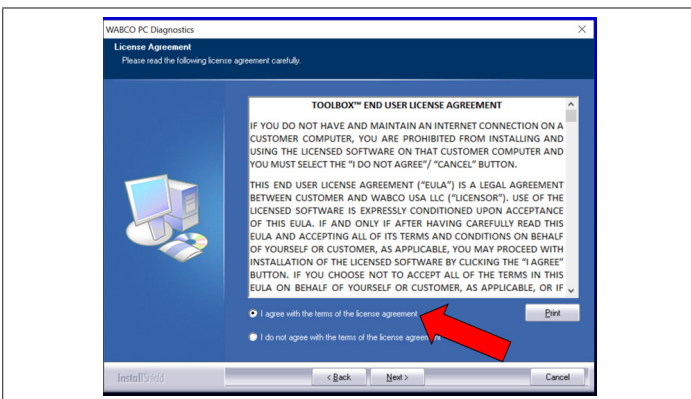
TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

4. As each process is completed, click “Next” to continue

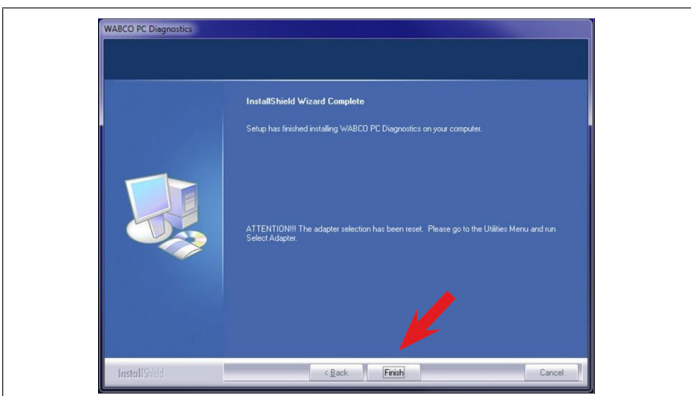


5. Read the End User License Agreement (“EULA”). If you agree with its terms, please select “I agree with the terms of the software agreement”, and then click on “Next” to continue the installation process.

If the user does not agree with the EULA then click “I do not agree with the terms of the license agreement”. Then click cancel to stop the installation of the TOOLBOX PLUS™ software. User can contact the WABCO Customer Care Center at (855) 228-3203 to review the EULA Agreement and their concerns.



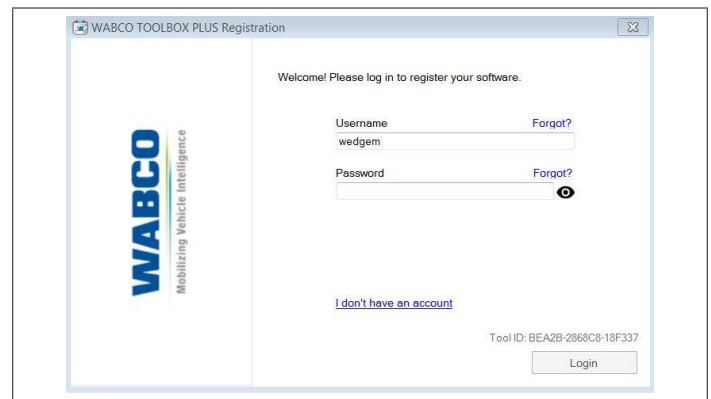
6. After clicking on “Next”, the files begin downloading. A confirmation window will pop up on the screen. Click “Finish” to complete the process and launch the TOOLBOX PLUS™.



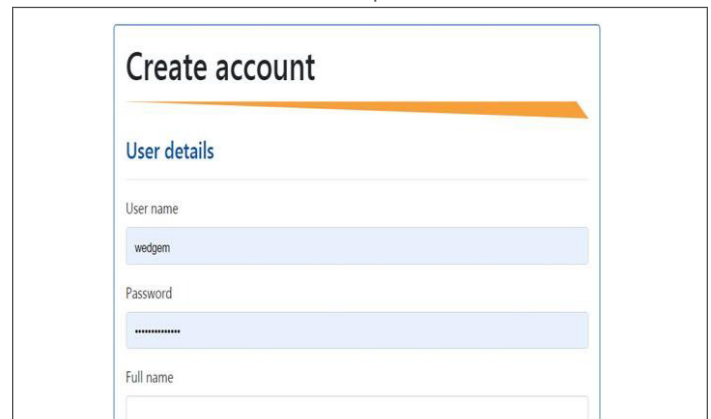
You may restore the UAC setting to the desired selection after the installation of the TOOLBOX PLUS™ software is complete. Rebooting the PC/Laptop will reset the UAC back to the original setting.

Subscription Registration

User will need to register the TOOLBOX PLUS™ subscription before the TOOLBOX PLUS™ application will work. After the TOOLBOX PLUS™ software completes installation a registration window will open to register your subscription. WABCO recommends that an IT support systems person or a manager registers the software. This is due to the fact that a Login and Password will need to be created to register your subscription. PC/Laptop must be connected to the internet for the registration process. User will click “I don’t have an account” on the registration screen.

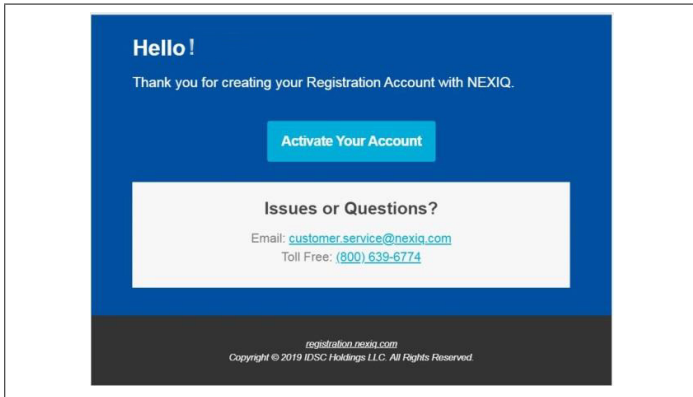


A “create account” screen will open for the user.



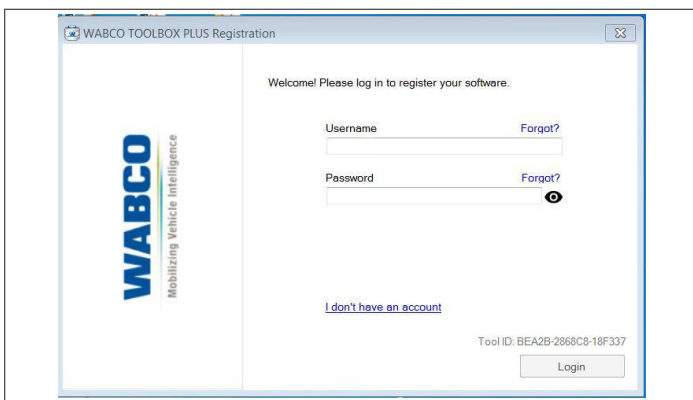
TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

After completing the online instructions to create an account, the user will receive an email to activate the registration account.

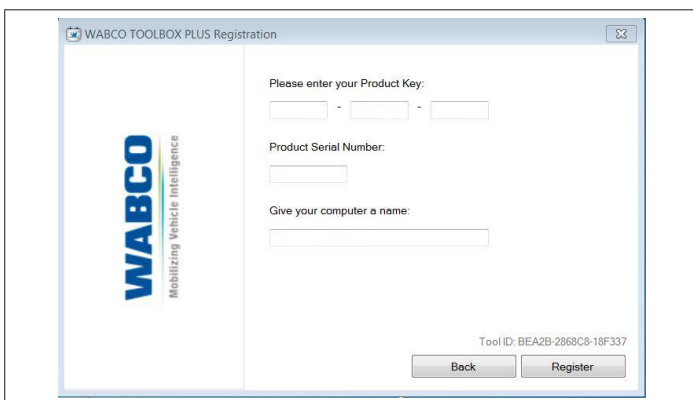


Then select the TOOLBOX PLUS™ icon on your desktop to open the application.

Registration Login screen will open; enter your login ID and password on this screen.

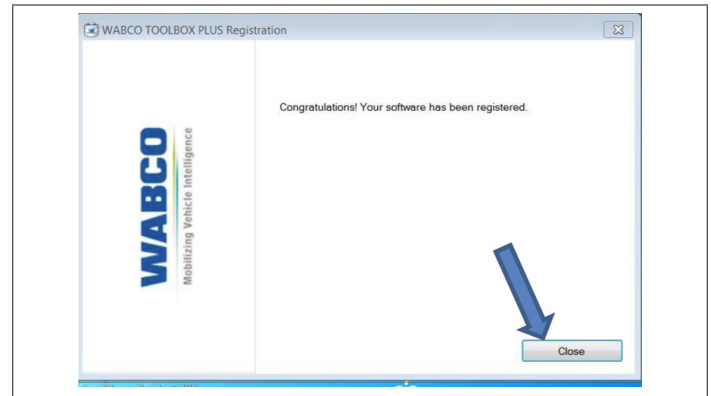


Next a Product Key screen will open. The user will need to type the product key and serial number provided with the software subscription.



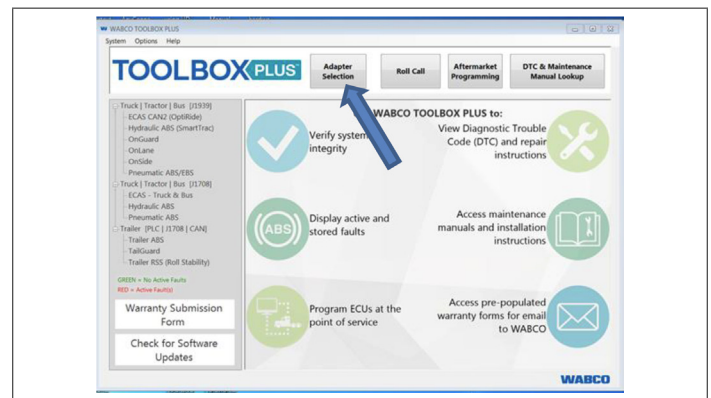
User will click register and a message will pop up indicating

registration was successful



User will click “close” and the TOOLBOX PLUS™ application will open.

User will need to select the Adapter Button to assign the RP1210 adapter being used.



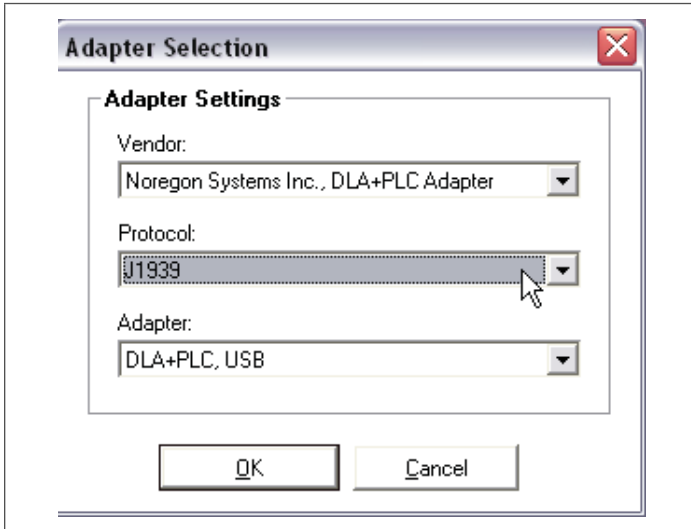
ADAPTER HARDWARE SETUP

A diagnostic RP1210 adapter is required for communications between the vehicle’s hardware and TOOLBOX PLUS™ software.

- Establish a connection between the computer’s USB and the RP1210 diagnostic adapter.
- Establish connection between the diagnostic adapter and the vehicle’s SAE diagnostic interface connector.

Please refer to your hardware manufacturer’s installation and connection procedures. Please ensure you have the latest software, drivers and firmware for your diagnostic tool. The diagnostic adapter is available for selection by clicking on the “Adapter Selection” Icon at the top of page.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE



i TOOLBOX PLUS™ diagnostic software is only operational with WABCO electronic vehicle control products. A list of common RP1210 Compliant Adapters known to operate with WABCO diagnostics application software is below. Please contact the manufacturer directly or visit their website to determine your specific diagnostic needs.

RP1210 Compliant Device List:

Noregon Device:

- www.noregon.com

Nexiq Device List:

- www.nexiq.com

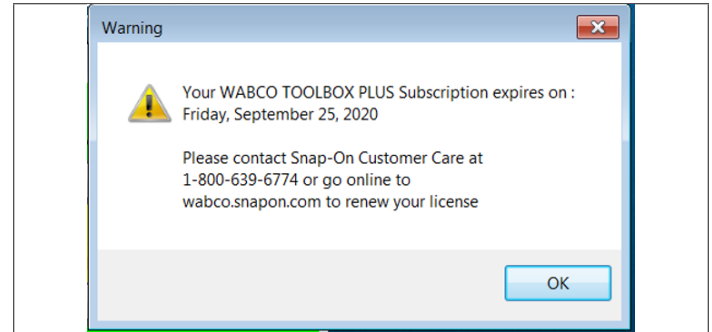
Dearborn Group Device List:

- www.dgtech.com

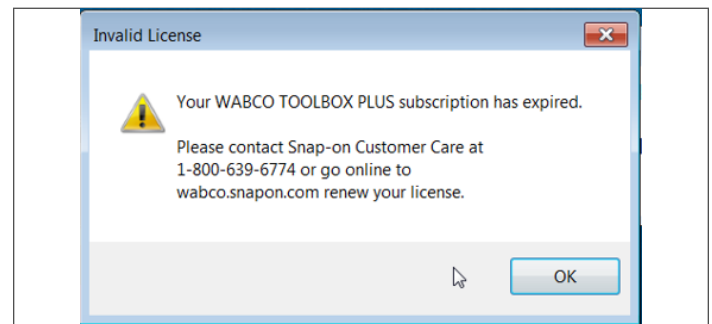
i WABCO neither promotes nor recommends any specific manufacturer's diagnostic adapters.

Subscription Registration Timeline

TOOLBOX PLUS™ is a subscription based software. The subscription starts when the user registers the TOOLBOX PLUS™ software. TOOLBOX PLUS™ has provisions to remind the user prior to expiration of the subscription. The user will receive a message one time at 60 days and 30 days.



When there is only 7 days left the user will receive a message every time the TOOLBOX PLUS™ application opens as well as an email reminder that the subscription is about to expire. On day 0 the user will receive a message when opening the TOOLBOX PLUS™ application that the subscription has expired. The user will have a 30 day grace period before the TOOLBOX PLUS™ application stops working.



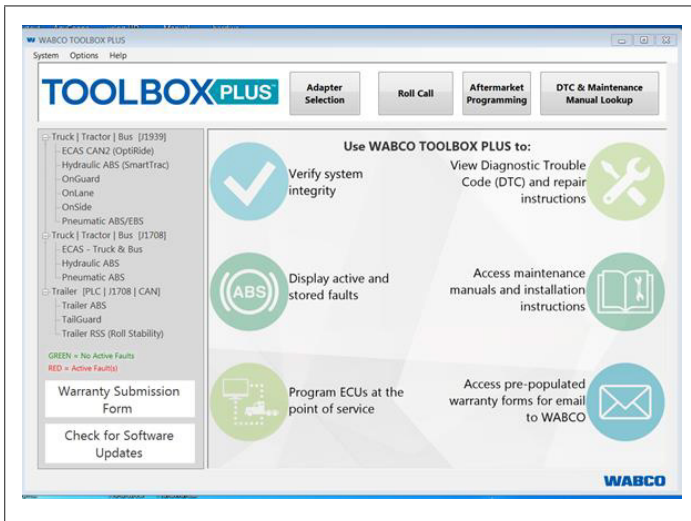
After the 30 day grace period expires, the user will get a message that the subscription has expired and will need to purchase another subscription to be able to continue to use the TOOLBOX PLUS™ application. The user will need to go to <https://wabco.snapon.com> to purchase a new subscription.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

TOOLBOX PLUS™ MAIN SCREEN

Starting TOOLBOX PLUS™ Software

To open the TOOLBOX PLUS™ main menu, click the icon on your computer's desktop.

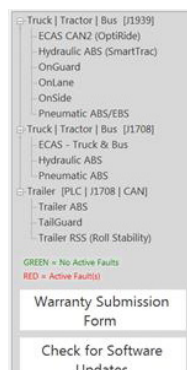


The main menu provides multiple selections for testing and diagnosing WABCO systems. Each selection opens an independent diagnostic software package. Clicking the System tab at the top of the main screen will provide a drop down menu with an Adapter Selection and Exit option which will allow the user to select the RP1210 adapter that is being used or to close the TOOLBOX PLUS™ application. This will return the user back to their desktop.

Expanded Menu

The Expanded Menu allows the user to select WABCO CAN (J1939), WABCO J1708 applications and WABCO Trailer applications.

Within the main menu the user can select the specific WABCO system to be diagnosed. An additional feature in the menu is when TOOLBOX software is first opened the software will detect all WABCO hardware installed on the vehicle. The text in the menu will highlight in **GREEN** or **RED** or **GRAY**. If the hardware is not present the text will remain **GRAY**. If the text in the menu is **GREEN** then there are no active faults in that hardware. If the text in the menu is **RED** then there are active faults in that hardware.

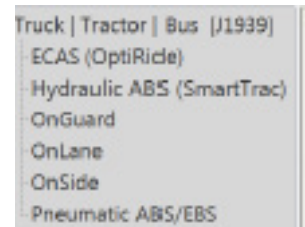


Warranty Submission Form

The Warranty Submission form can be accessed using the button on the Main Menu. When the user selects the Warranty Submission Form button TOOLBOX software will link the user to an online website which allows the user to complete the form, attach DTC Reports, Parameter Files, OnGuard Decoder File, etc. This then can be emailed to WNACustomerCare@wabco-auto.com.

Truck/Tractor/Bus (J1939) Main Menu

Truck/Tractor/Bus (J1939) menu provides access to the TOOLBOX PLUS™ SAE J1939 Tractor diagnostics for WABCO J1939 ABS-equipped vehicles.



This application displays information for testing, displays active and stored diagnostic trouble codes, provides appropriate repair instructions and also provides a means to activate system components, verifying system integrity.

ECAS (OptiRide)

Selecting the ECAS (OptiRide) from the menu opens the TOOLBOX PLUS™ diagnostics for WABCO ECAS-equipped vehicles. This application displays information from the vehicle ECAS system, displays diagnostic trouble codes and provides a means to activate system components, ride height programming and verify system integrity.



Hydraulic ABS (SmartTrac)

Selecting the Hydraulic ABS (SmartTrac) from the menu opens the TOOLBOX PLUS™ diagnostics for WABCO SmartTrac-equipped vehicles. This application displays information from the vehicle's SmartTrac system, displays diagnostic trouble codes and provides a means to activate system components and verify system integrity.



OnGuard®

Selecting the OnGuard from the drop menu opens the TOOLBOX PLUS™ diagnostics for WABCO OnGuard equipped vehicles. This



TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

application displays information from the radar, displays active and stored diagnostic fault codes, provides access to decoder and parameter files, and verifies system integrity.

OnLane®

Selecting the OnLane from the menu opens TOOLBOX PLUS™ diagnostics for WABCO OnLane-equipped vehicles. This application displays WABCO hardware information and allows the user to read diagnostic trouble codes, test start-up tones, set the system volume and perform various system tests.



OnSide®

Selecting the OnSide from the menu opens the TOOLBOX PLUS™ diagnostics for WABCO OnSide equipped vehicles. This application displays information from the radar, diagnostic trouble codes and verifies system integrity.



Pneumatic ABS/EBS

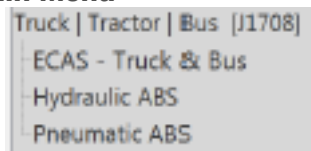
Selecting the Pneumatic ABS/EBS from the menu opens the TOOLBOX PLUS™ diagnostics for WABCO Pneumatic ABS or EBS-equipped vehicles. This application displays information from the Pneumatic ABS or EBS, provides diagnostic trouble codes, verifies system integrity, provides appropriate repair instructions and activates system components. The information varies based on which ABS system the vehicle is equipped with.



J1708 DIAGNOSTICS

TOOLBOX PLUS™ J1708 Main Menu

The Truck/Tractor/Bus (J1708) in TOOLBOX PLUS™ menu provides multiple selections for testing and diagnosing WABCO SAE J1708 systems. Each selection opens an independent diagnostic software package.



ECAS-Truck & Bus

Selecting ECAS-Truck & Bus from the menu opens the TOOLBOX PLUS™ SAE J1708 ECAS diagnostics for WABCO ECAS equipped vehicles. This application displays information

from the vehicle ECAS system, displays active and stored diagnostic fault codes, provides a means to activate system components, and verifies system integrity.

Hydraulic ABS

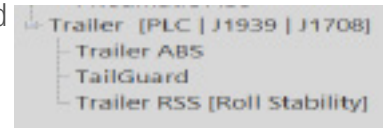
Selecting Hydraulic ABS from the menu opens the TOOLBOX PLUS™ SAE J1708 Hydraulic ABS diagnostics for WABCO hydraulic ABS-equipped vehicles. This application displays information from the vehicle's ABS system, displays active and stored diagnostic fault codes, provides appropriate repair instructions and provides a means to activate system components, verifying system integrity.

Pneumatic ABS

Selecting Pneumatic ABS from the menu opens the TOOLBOX PLUS™ SAE J1708 Tractor diagnostics for WABCO ABS-equipped vehicles. This application displays information from the vehicle's ABS system, displays active and stored diagnostic fault codes, provides appropriate repair instructions and provides a means to activate system components, verifying system integrity.

Trailer [PLC | J1939 | J1708]

Trailer (PLC/J1939/J1708) provides access to diagnostic support for trailers equipped with WABCO iABS and Enhanced Easy-Stop ABS, Roll Stability Support (RSS) and TailGUARD.



If connecting directly to the ABS ECU on the trailer through a diagnostic cable, verify the protocol is set to J1708/J1939. Not setting the communication protocol will result in no communication with the Trailer ABS. If you are connecting at the 7-way (J2497) nose connector make sure your protocol is set to PLC or the user will not be able to connect to the Trailer ABS ECU. This application displays information from the Trailer ABS System, provides active and stored diagnostic fault codes, provides appropriate repair instructions and provides the means to activate system components to verify system integrity.

TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Trailer ABS

Selecting Trailer ABS from the menu displays information from the Trailer ABS System, displays active and stored diagnostic fault codes, provides appropriate repair instructions and provides the means to activate system components to verify system integrity.

TailGUARD™

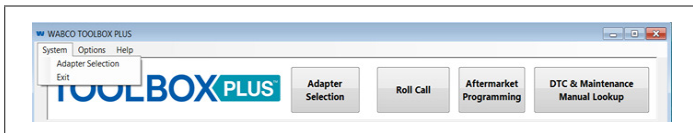
Selecting TailGUARD™ from the menu displays information for the TailGUARD™ System, displays active and stored diagnostic fault codes, provides appropriate repair instructions and provides the means to activate system components, program components and verify system integrity.

Trailer RSS (Roll Stability Support)

Selecting Trailer RSS from the menu displays information for the RSS System, displays active and stored diagnostic fault codes, provides appropriate repair instructions and provides the means to activate system components, program components and verify system integrity.

Utilities & Task Bar

These icons are found at the top of the main menu screen of TOOLBOX PLUS™. Each icon is labeled for its function.



Adapter Selection

There are two ways a user can open the Adapter Selection application. The first is using the Adapter Selection button from the TOOLBOX PLUS™ Main Screen; the other is to open the drop down menu under the System Tab.



These options provide the means to select and configure the diagnostic adapter to be used. Please verify you have the latest software driver and firmware for your specific diagnostic tool. Driver and firmware updates are available from your hardware manufacturer's website or can be purchased by calling them directly. To configure a diagnostic

adapter, select the Utilities icon to open the Utilities Menu.



Your specific adapter is only available if it is a compatible device and the software drivers have been installed correctly. If your device is not listed, please re-install the appropriate adapter drivers or contact the manufacturer. Vendor name and specifics should appear on the parts label of the adapter or its documentation.

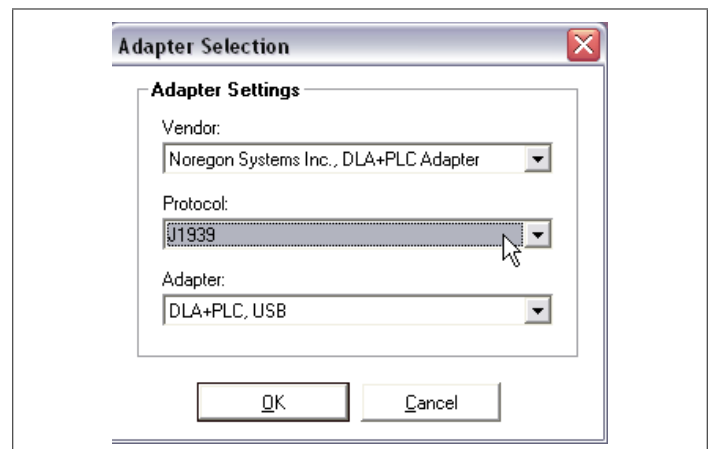
Vendor

Click the down arrow for a list of diagnostic tools whose drivers have been correctly installed.



Protocol

Click the down arrow for the protocol choices.

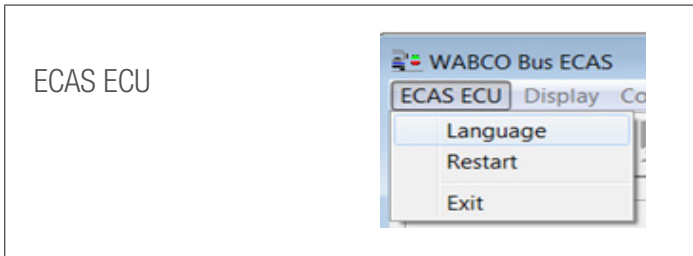
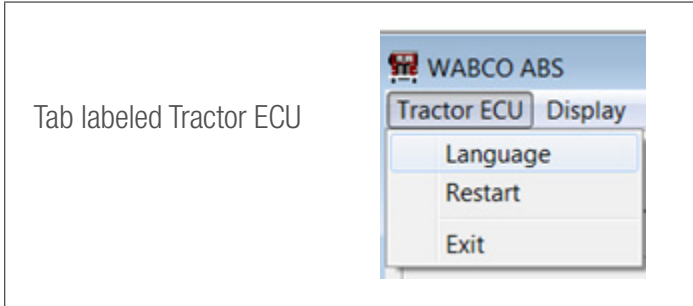


Changing protocols during the use of TOOLBOX PLUS™ software requires an ignition or power cycle. This is required to reset the hardware and establish communications.

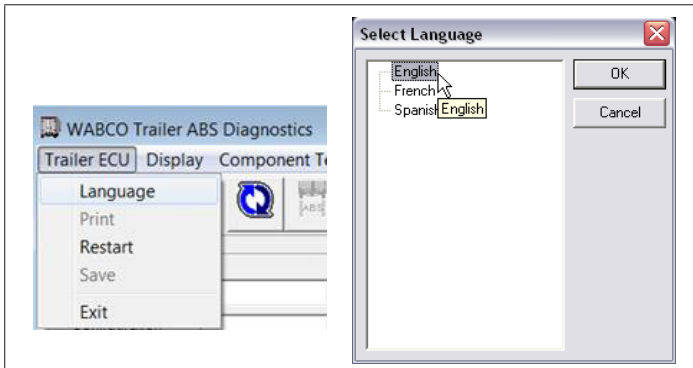
TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

Language Setting

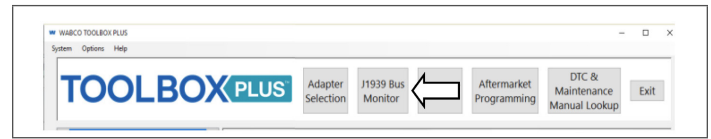
This option only functions for J1708 Truck, ECAS and Trailer.
To change the language, select the following:



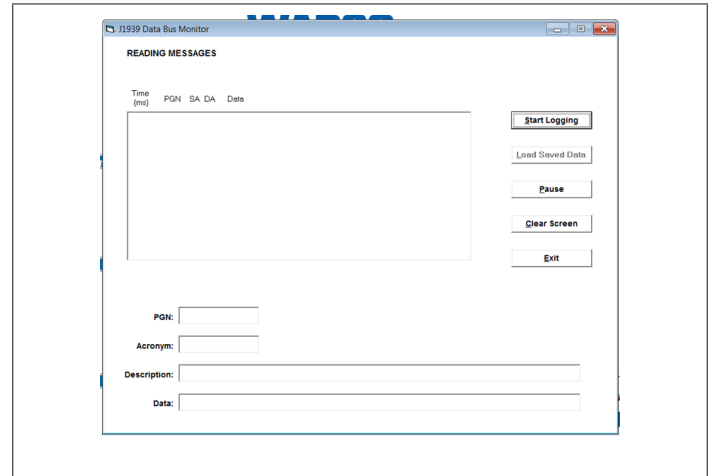
Then select the “Language” option in the drop down menu.



J1939 Bus Monitor

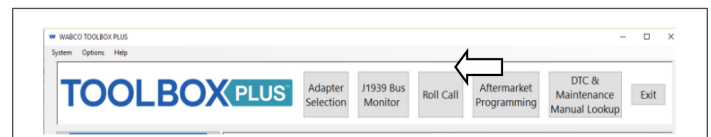


This function allows the user to monitor J1939 Bus traffic at the Vehicle diagnostic connector.



Roll Call

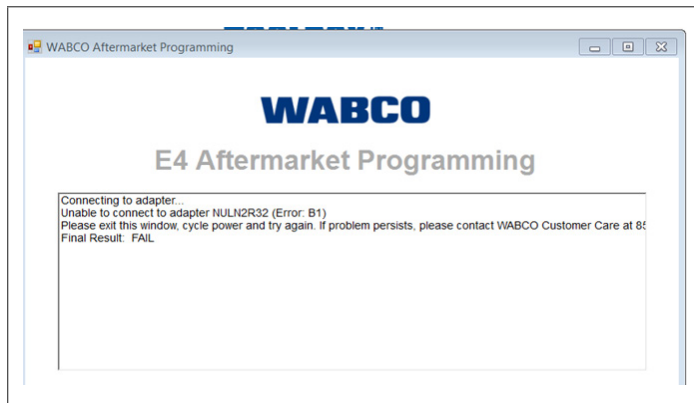
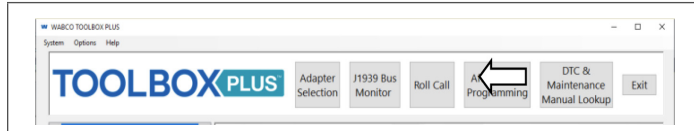
Selecting the roll call function allows the user to check for WABCO J1939 systems such as ABS and OnGuard.



TOOLBOX PLUS™ DIAGNOSTIC SOFTWARE

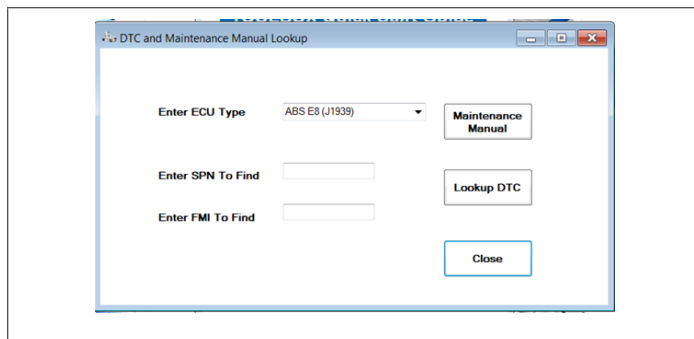
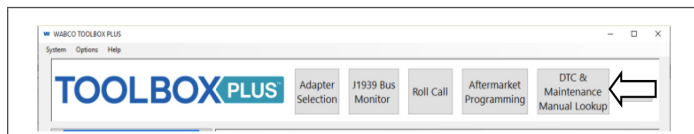
Aftermarket Programming

Selecting the Aftermarket Programming option will open the ABS ECU programming functionality for replacement electronic control unit (ECU) for an anti-lock brake system (ABS). Service centers can now stock an inventory of partially programmed ABS control units. Using the TOOLBOX PLUS™ Aftermarket Programming application they can quickly configure these parts for a wide variety of vehicles.



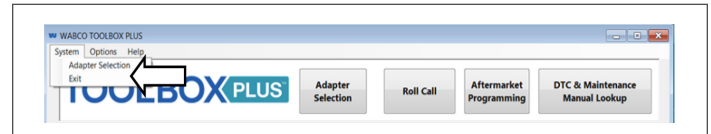
DTC & Maintenance Manual Lookup

Selecting this option provides a short cut to locate fault code descriptions and access maintenance manuals. Note that all maintenance manuals can also be found on www.wabco-na.com/literature.



Exit

To close the application the User just selects the "EXIT" in the System drop down menu at the top of the Main Menu.





For further product details contact your distributor or the
WABCO Customer Care Center at 855-228-3203.

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 162,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO). For more information, visit: www.wabco-na.com

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