

ServiceRanger 4 Pro+ User Guide



Table of Contents

Initial Installation.....	3
Updates	16
Instructions.....	22
Clutch Callibration.....	67


Initial Installation







Latest software versions will be also available at the following web site:

<https://www.jaltest.com/oemsolutions/eaton-advantage-automated-clutch-calibration-tool/>

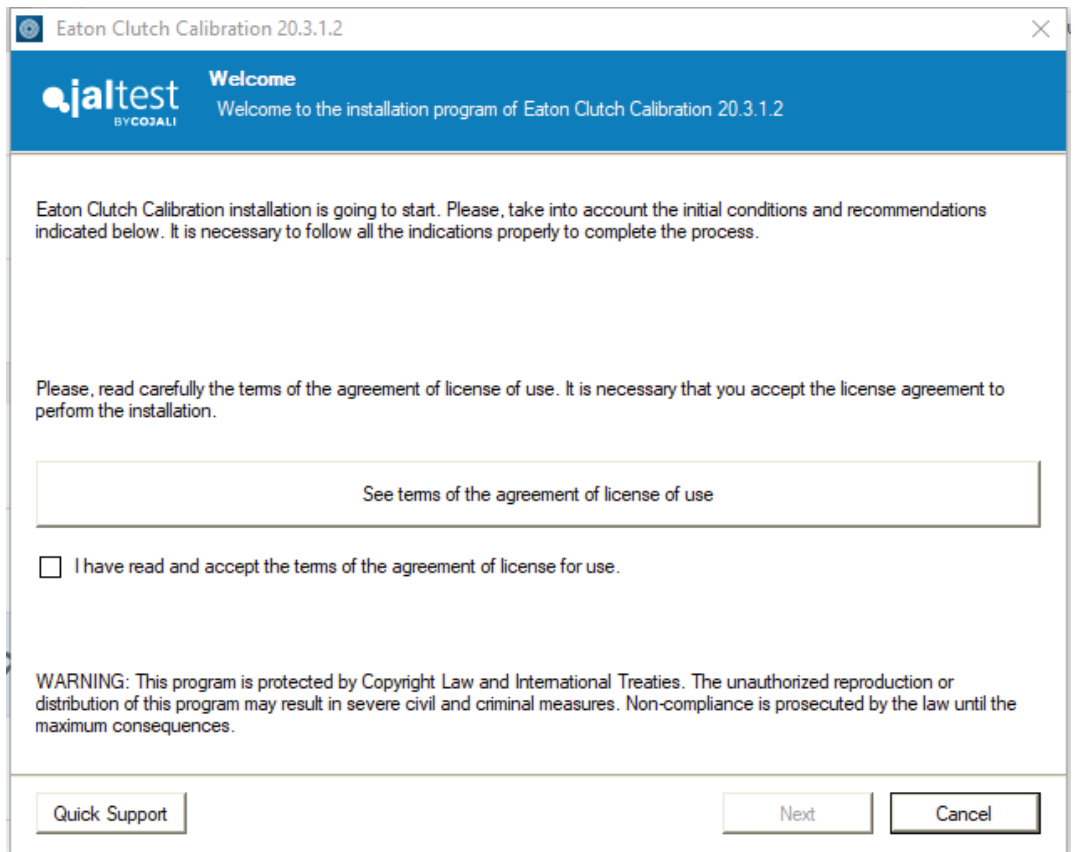
The package will be downloaded as a zip file. It will be necessary to extract the files and launch the executable.

Note: Administrator rights are needed.

Name	Date modified	Type	Size
 20_3_1_2_EatonClutchCalibration.zip	10/21/2020 11:10 AM	Compressed (zipp...	1,812,184 KB

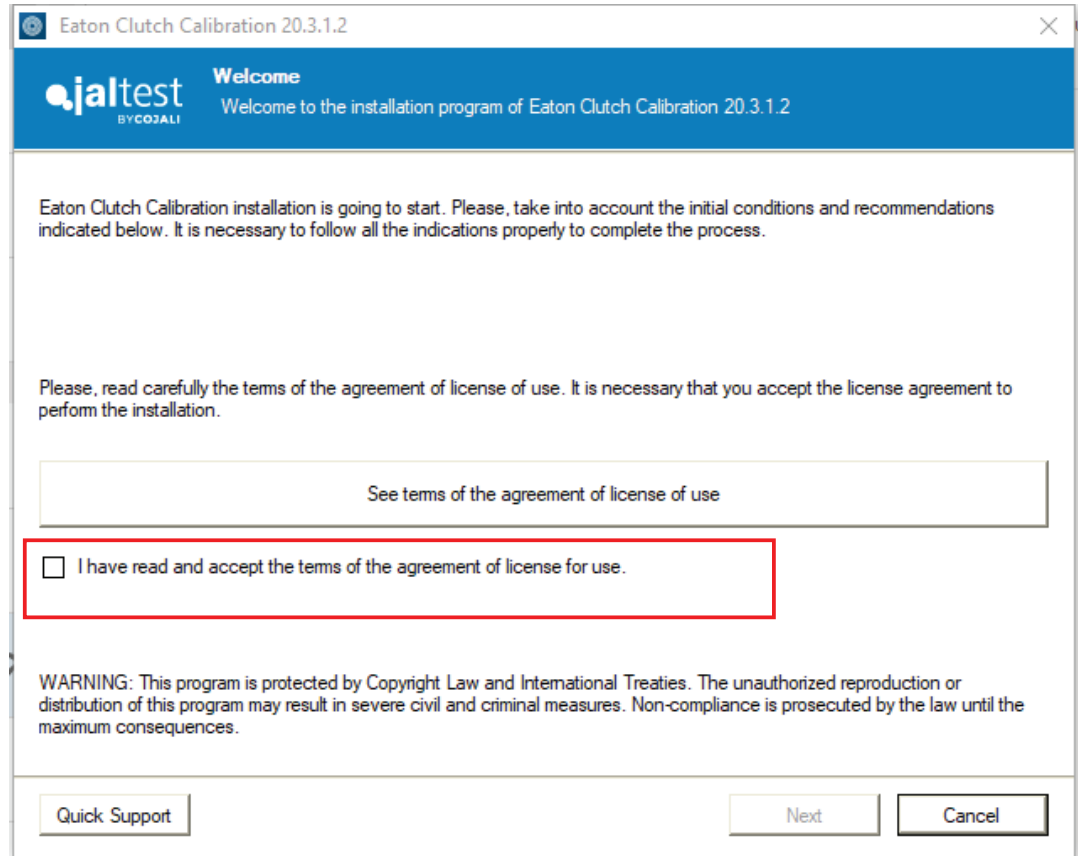
Name	Date modified	Type	Size
 20_3_1_2_EatonClutchCalibration_F1F	10/6/2020 7:18 PM	File	111,063 KB
 20_3_1_2_EatonClutchCalibration_F2F	10/6/2020 7:18 PM	File	111,448 KB
 20_3_1_2_EatonClutchCalibration_Install.exe	10/19/2020 9:53 AM	Application	643,950 KB
 20_3_1_2_EatonClutchCalibration_Ref	10/14/2020 7:53 PM	File	943,345 KB
 20_3_1_2_EatonClutchCalibration_S1F	10/14/2020 5:22 PM	File	1,145 KB
 20_3_1_2_EatonClutchCalibration_S2F	10/14/2020 5:22 PM	File	1,401 KB

Open the executable (.exe) file.



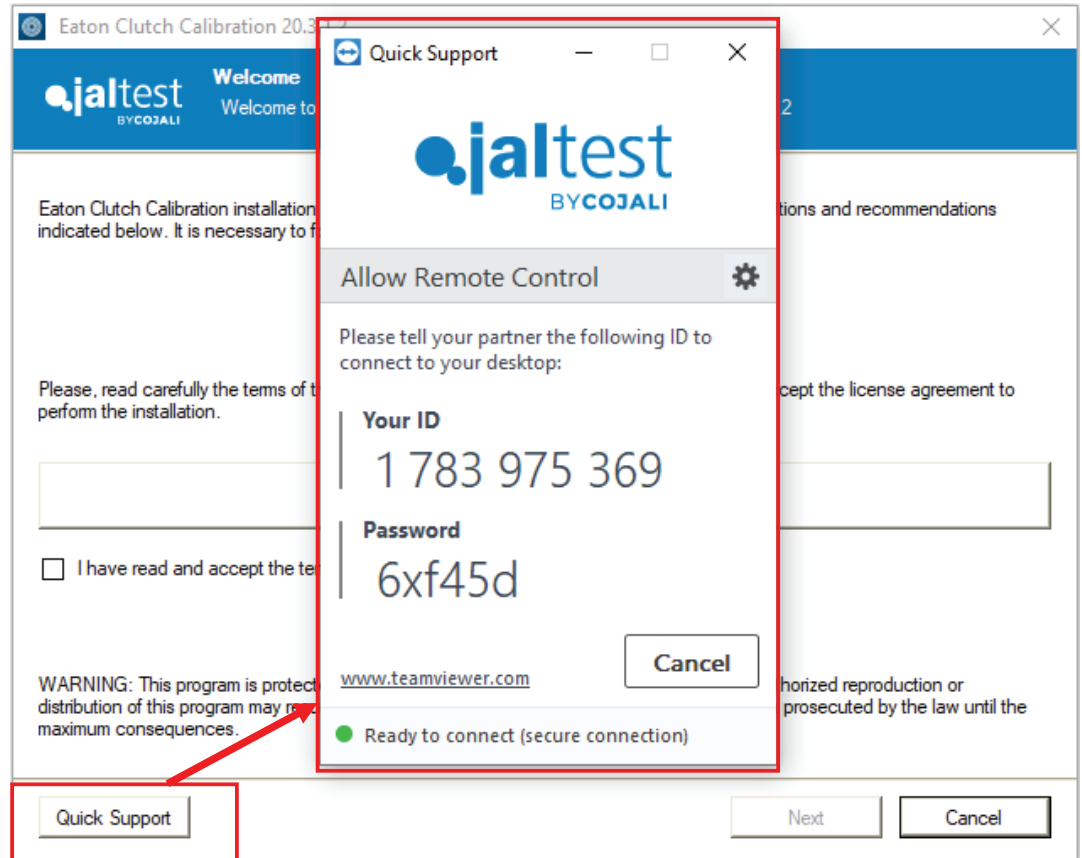
Initial Installation

Select the checkbox indicated below and click "Next":



Initial Installation

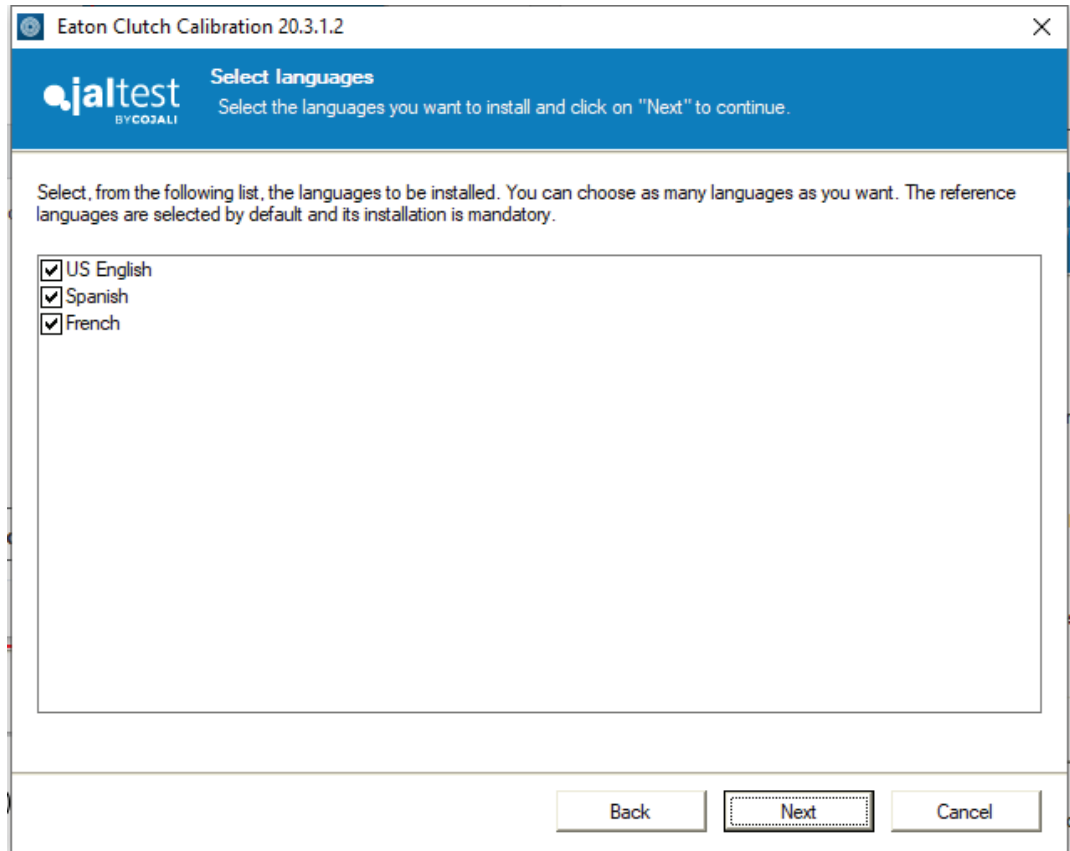
In case of need for assistance, click on "Quick Support" to request a Customer Support remote connection.



Initial Installation

Select the languages you want to include. By default, US English, Spanish and French will be installed.

Click on "Next" to continue.



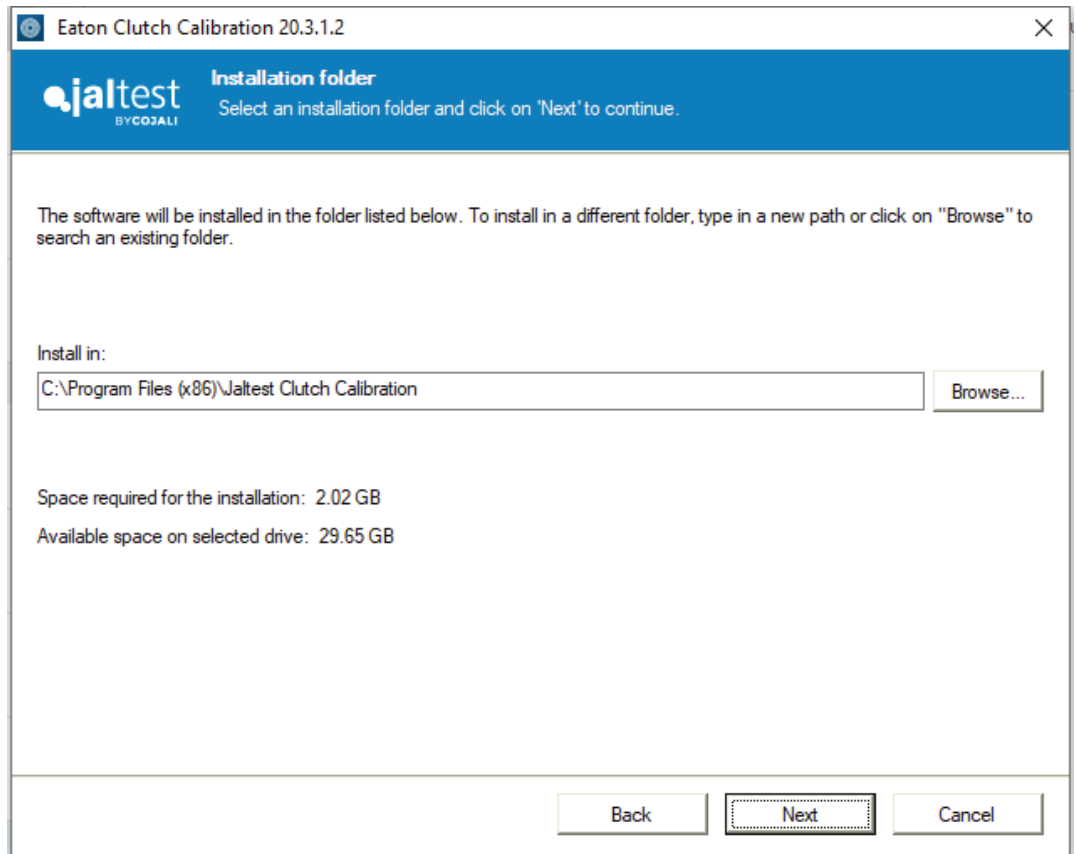
Initial Installation

The setup indicates the disk space required for the installation. You will be notified in case there is not enough space.

By default, the software will be installed in the next folder. Just confirm by clicking "Next".

Keep this installation folder. APPCenter from Eaton Service Ranger will use that path by default.

Installation will not create shortcut icons on the desktop. The software will not appear in the start menu either.



Initial Installation

For the next step, it is recommended to have an internet connection to complete the license activation and make sure the PC requirements are met.

In case a proxy is installed in the company organization, it can be configured at this point. That only happens in companies with very restrictive policies regarding internet (e.g., Army, Navy...). In those cases, the computer does not really have direct internet connection, it connects to a third computer to access the internet. That configuration must be managed by the IT Department of the company.

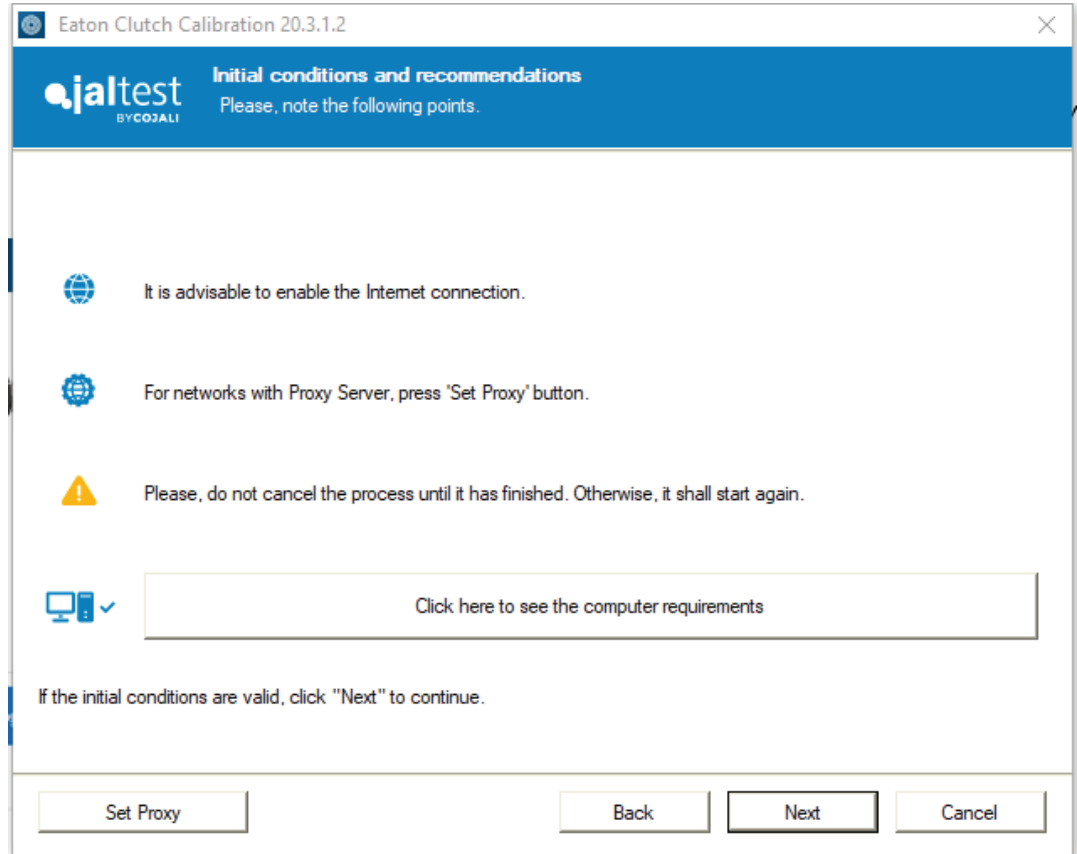
Do not confuse this with firewall restrictions.

The IP address and port used by the software, for license requests and software downloads, are:

```
***.jaltest.com: 443  
176.28.11783:21
```

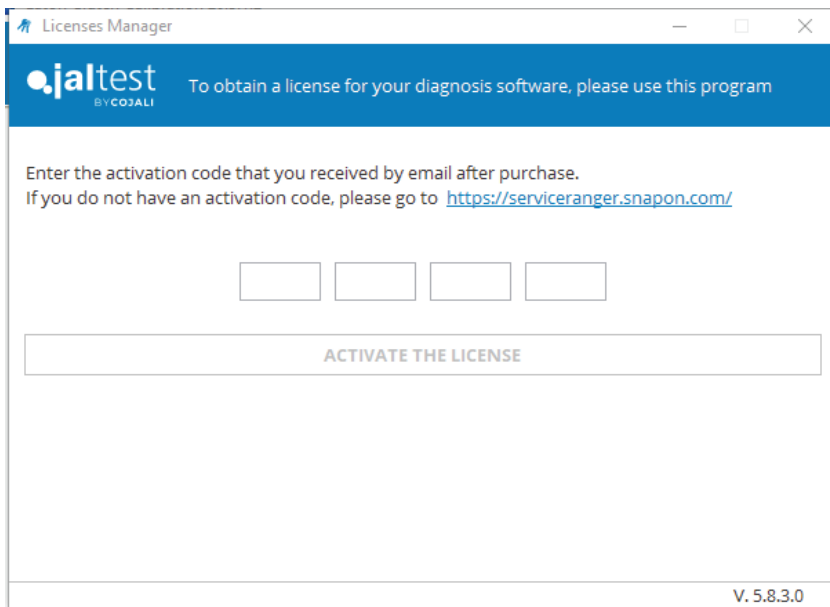
By default, most of the firewall configuration will admit these accesses without additional changes.

Click on "Next" to continue.

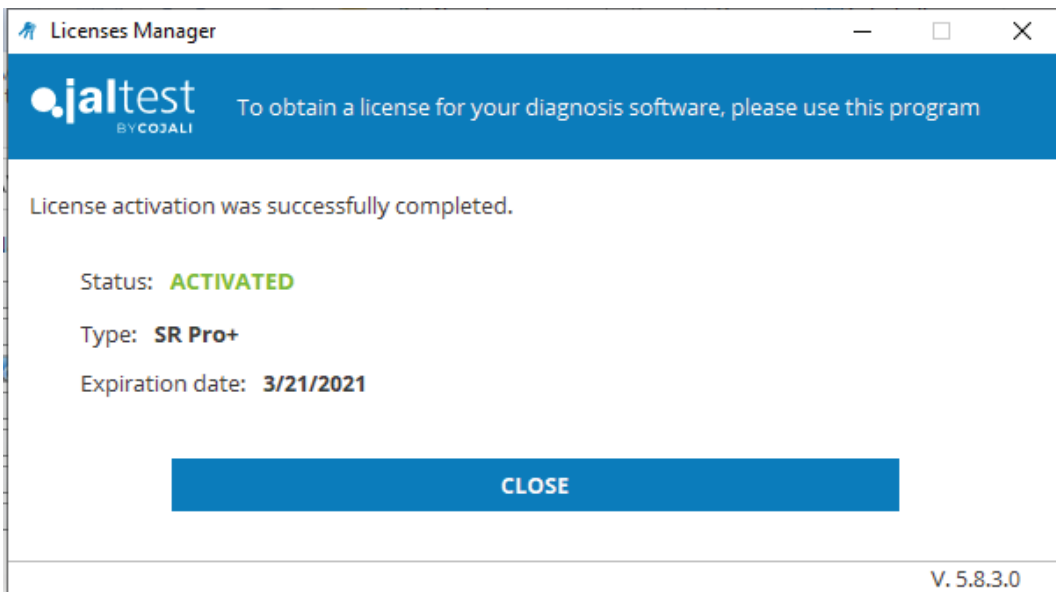


Initial Installation

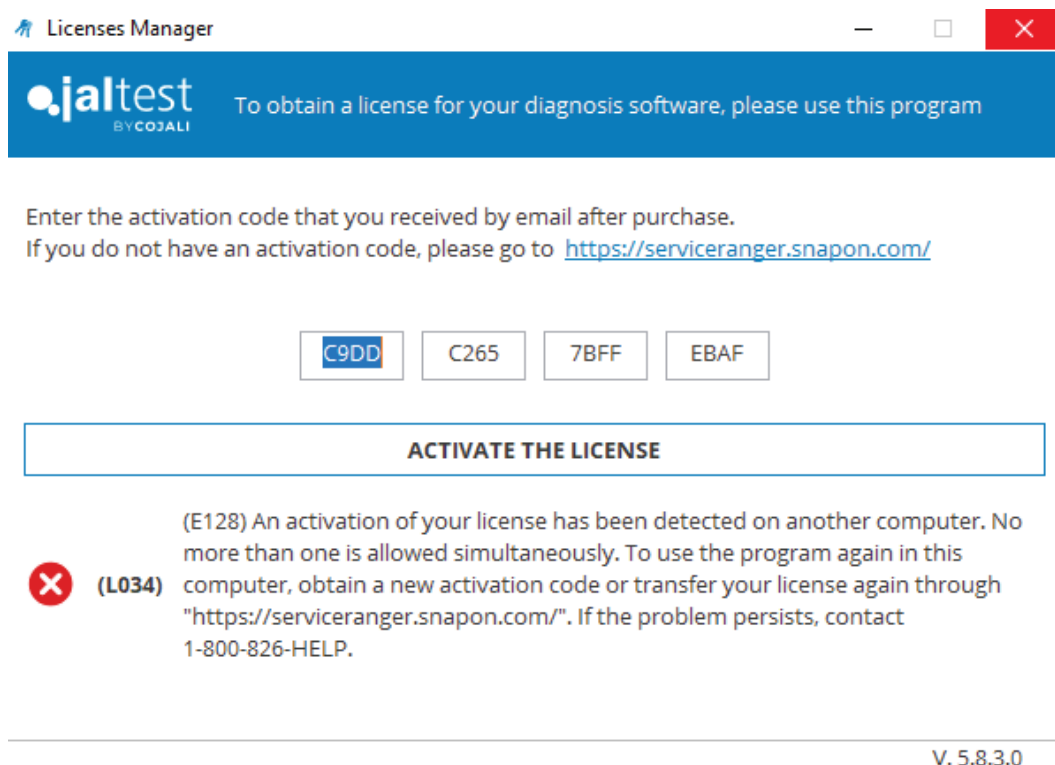
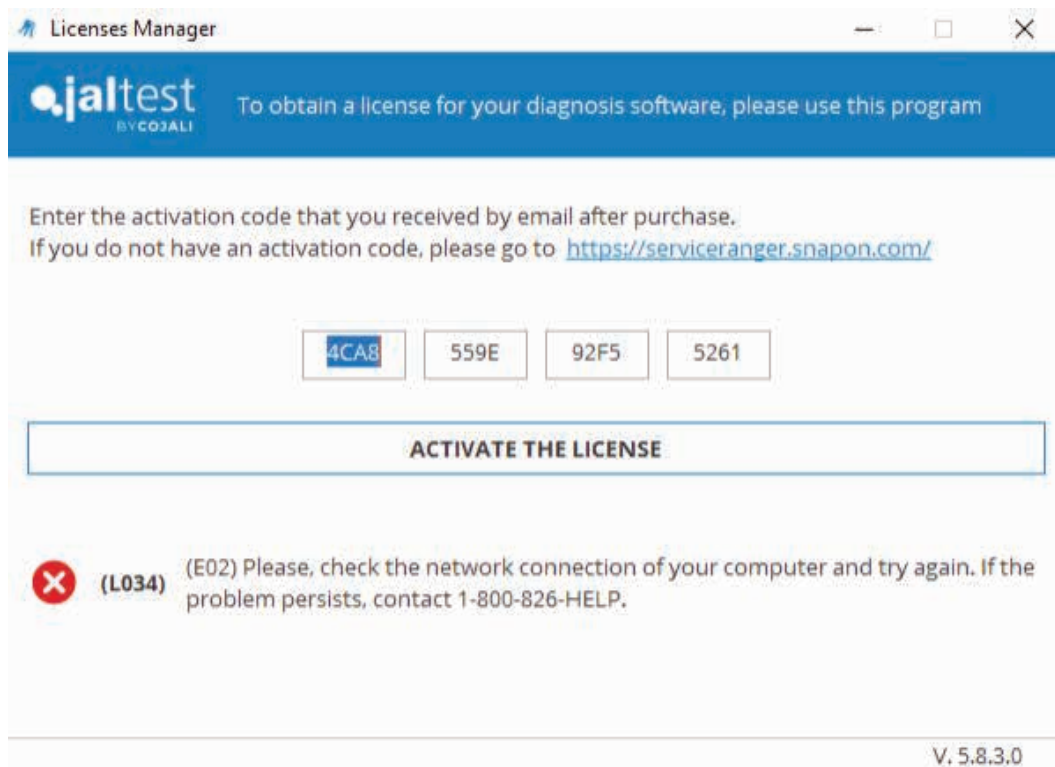
An Activation Code is required. Additionally, the setup will redirect you to Eaton's website to purchase a license in case the user has not previously purchased it.



The Activation Code is confirmed and license is activated. In case of the process is not completed, an error message will appear to troubleshoot the issue. See second and third image below.

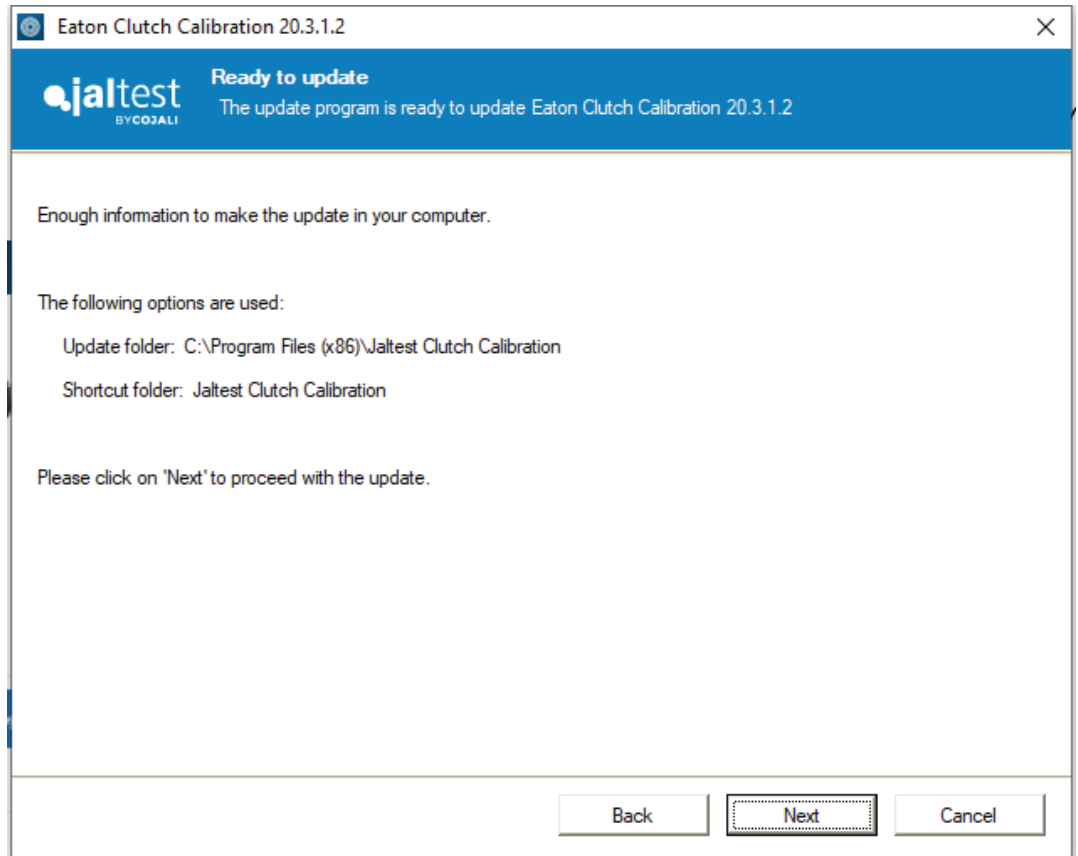


Initial Installation



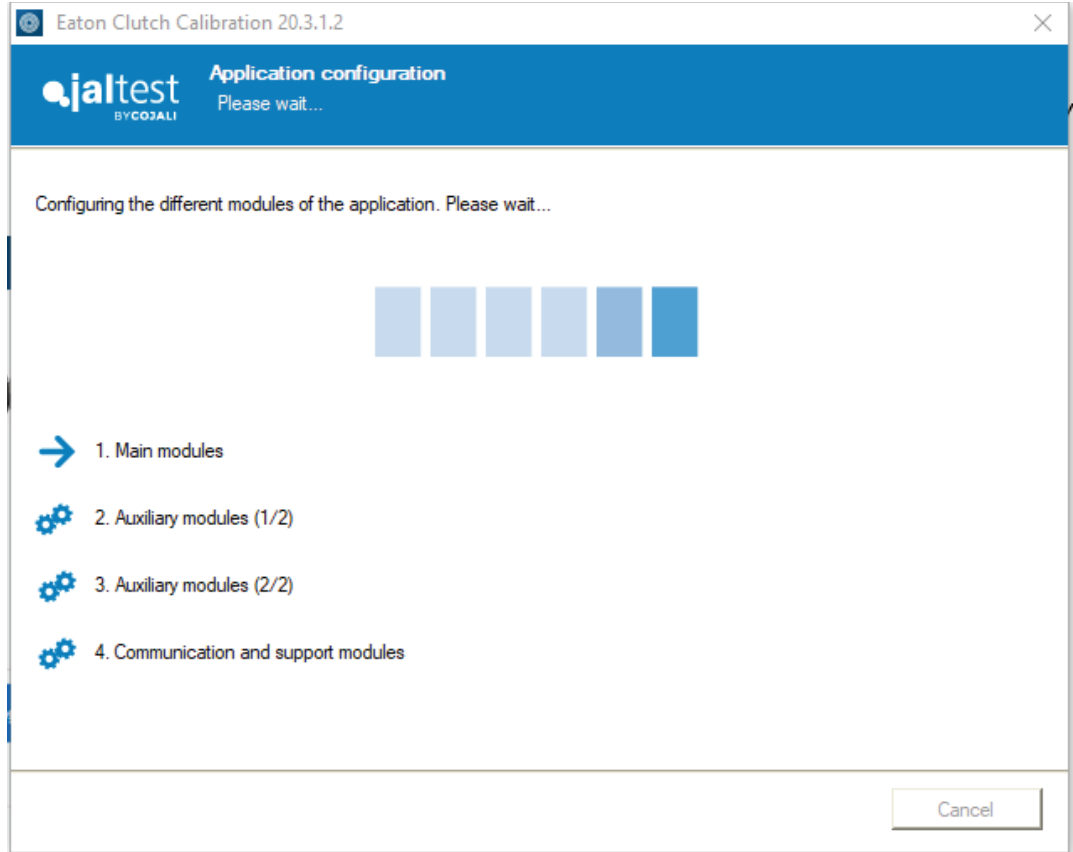
Initial Installation

Click "Next" to start the deployment of the files.



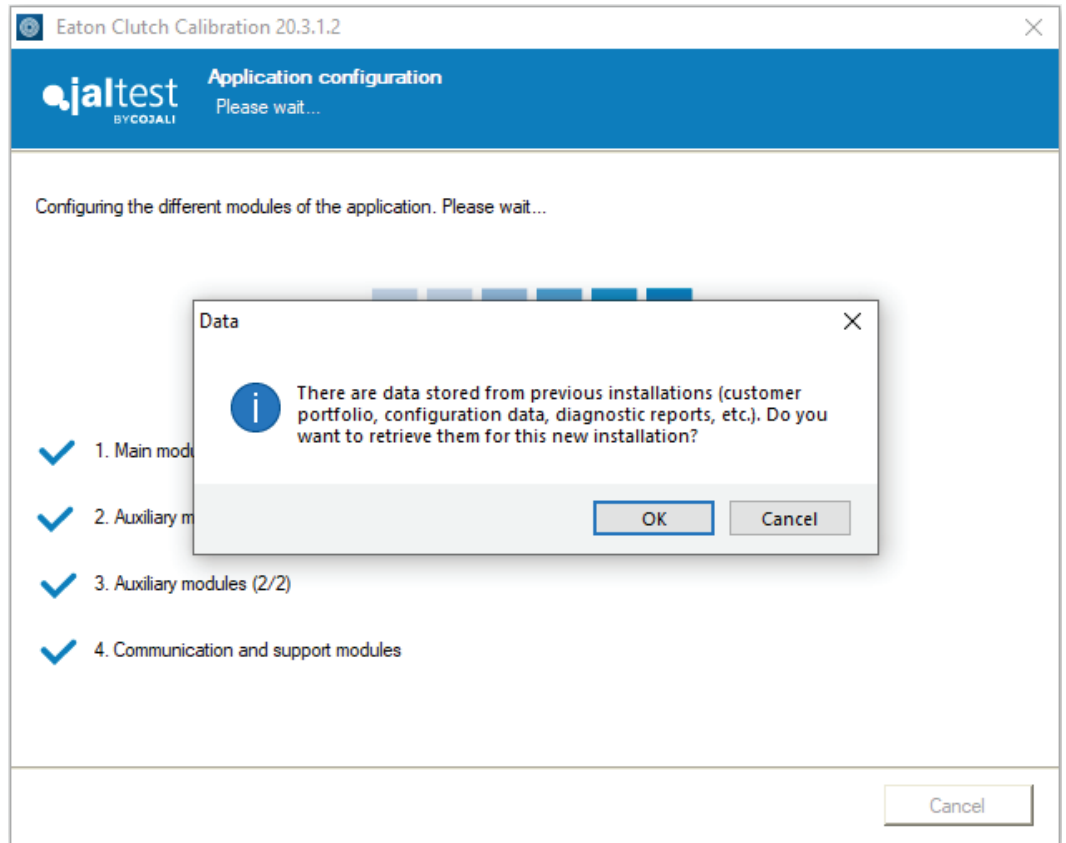
Initial Installation

Some automatic operations will be executed during the installation of the files. This should take less than five (5) minutes to complete.



Initial Installation

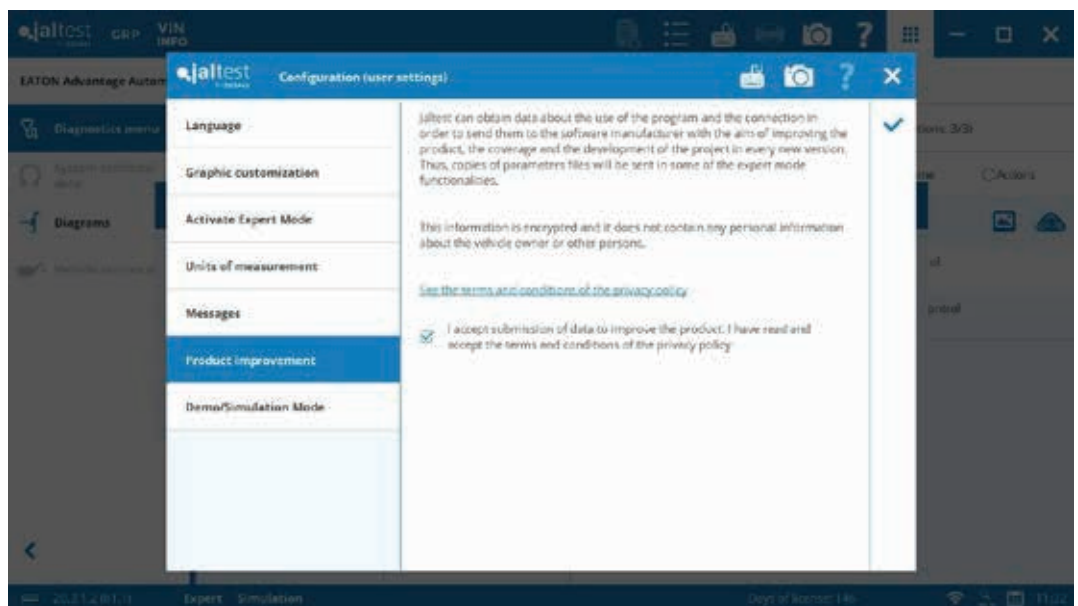
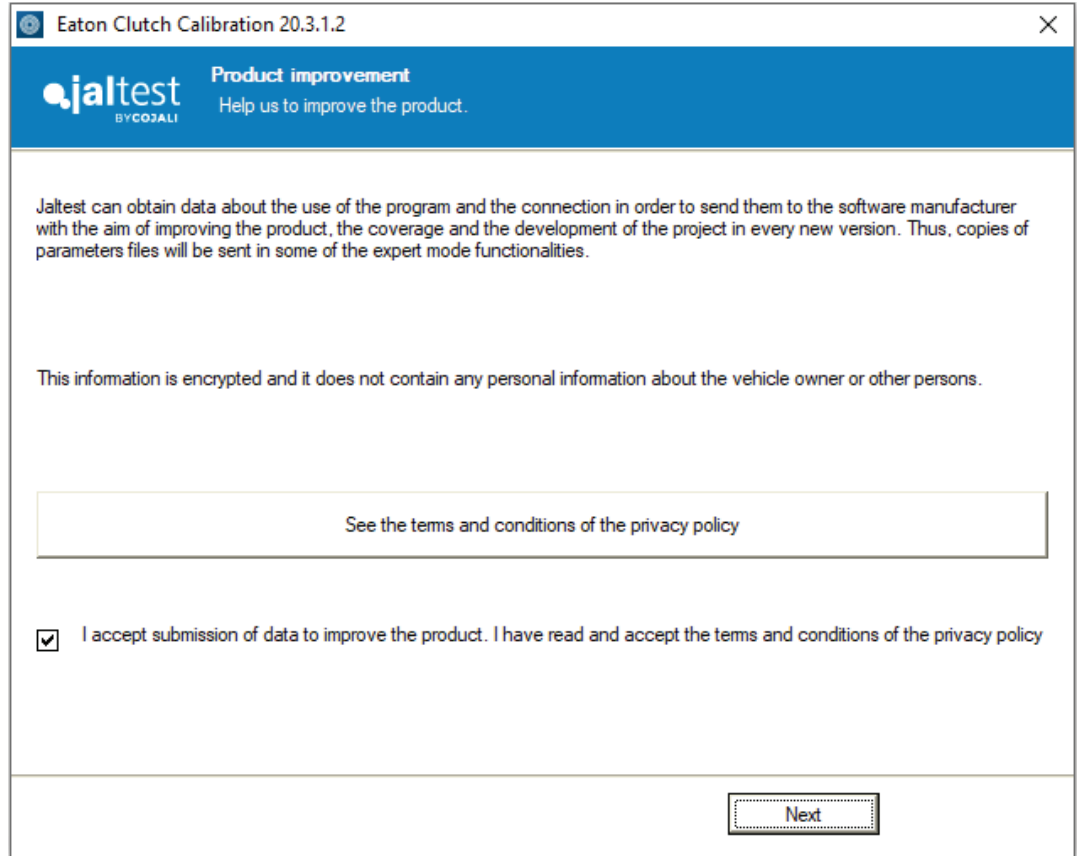
In case a previous installation is detected, a popup message will appear offering to back-up the information.



Initial Installation

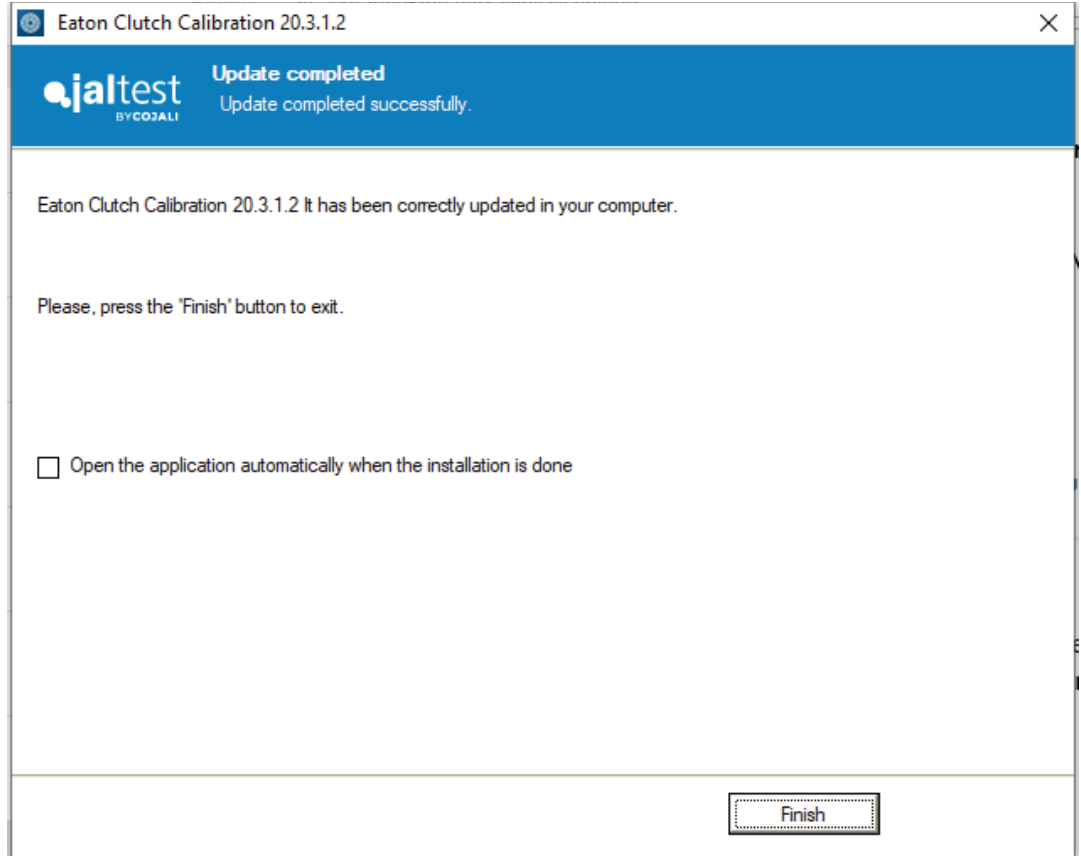
“Product improvement” helps us to receive anonymous data which can be used to improve the product and user experience.

It is possible to uncheck the box, in case you do not wish to send the information. This can be modified at any point in time from the software, once installed. See the second picture below (option available in “Preferences” menu > “Configuration” section).



Initial Installation

When the installation process is completed, this window will appear. Check the box and the software will open.



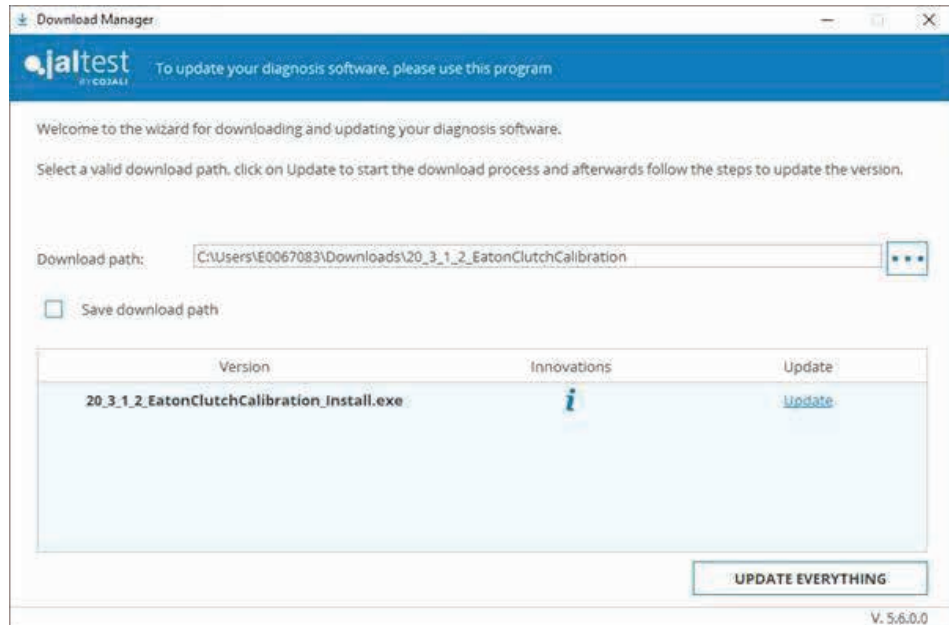
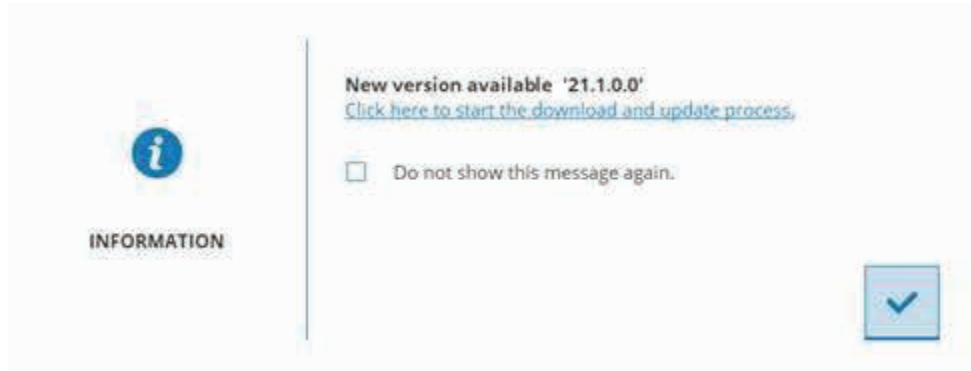
Updates

There will be a minimum of one (1) version per year, but probably the frequency of updates will be every four (4) months to update any of the software variants released by the manufacturers to the market. New functions and improvement may be added.

Latest version will be available at the next locations:

- 1) *Eaton Advantage Automated Clutch Calibration* will notify if a new version is available. By clicking on the hyperlink provided, a "Download Manager" (DM) will serve as a guide for the download process. Once downloaded, the DM will offer to install the new version.

This is the recommended option by Cojali.










Updates

2) Latest version will be also available at:

<https://www.jaltest.com/oemsolutions/eaton-advantage-automated-clutch-calibration-tool/>

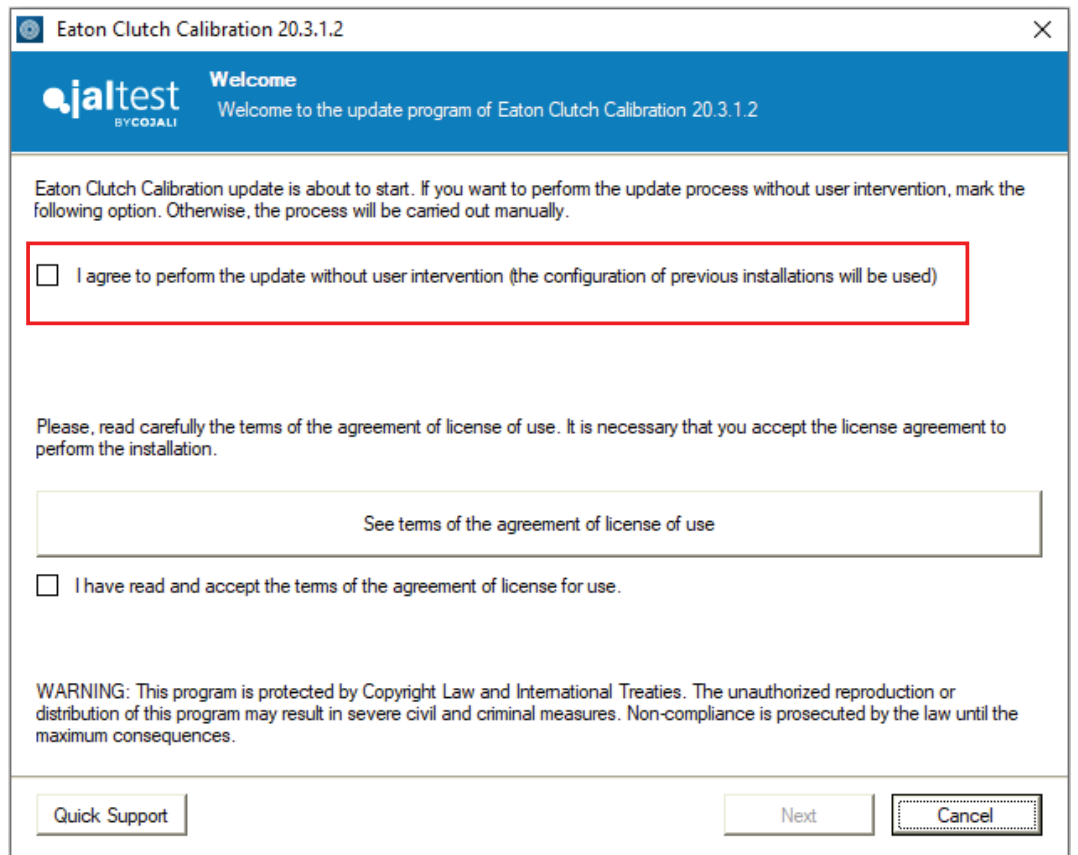
The package will be downloaded as a zip file. It will be necessary to extract the files and launch the executable file.

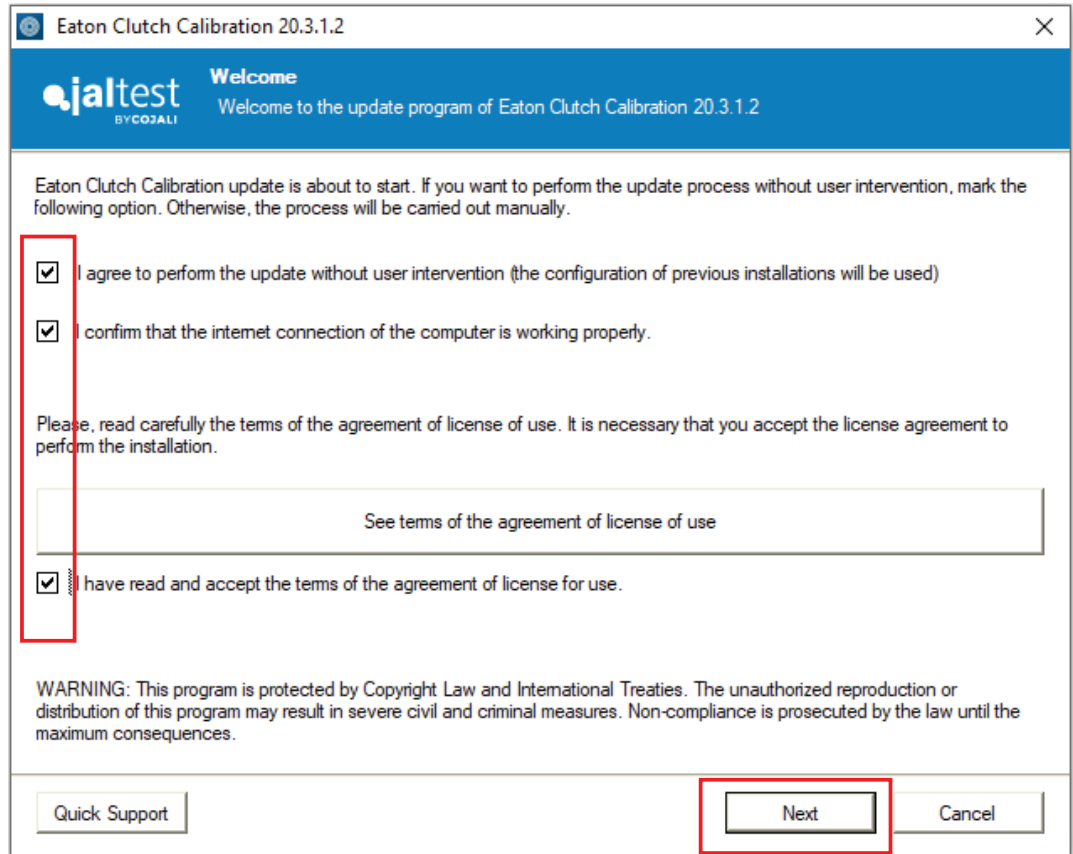
Name	Date modified	Type	Size
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Name	Date modified	Type	Size
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 20_3_1_2_EatonClutchCalibration_F2F	10/6/2020 7:18 PM	File	111,448 KB
 20_3_1_2_EatonClutchCalibration_Install.exe	10/19/2020 9:53 AM	Application	643,950 KB
 20_3_1_2_EatonClutchCalibration_Ref	10/14/2020 7:53 PM	File	943,345 KB
 20_3_1_2_EatonClutchCalibration_S1F	10/14/2020 5:22 PM	File	1,145 KB
 20_3_1_2_EatonClutchCalibration_S2F	10/14/2020 5:22 PM	File	1,401 KB

Once the installation process has started, the following window will appear (for both options).

It is highly recommended to check the first option. After that, it is necessary to confirm that an active internet connection is available to check the status of the license during the process and accept the terms of the License Agreement. Click "Next" to continue.

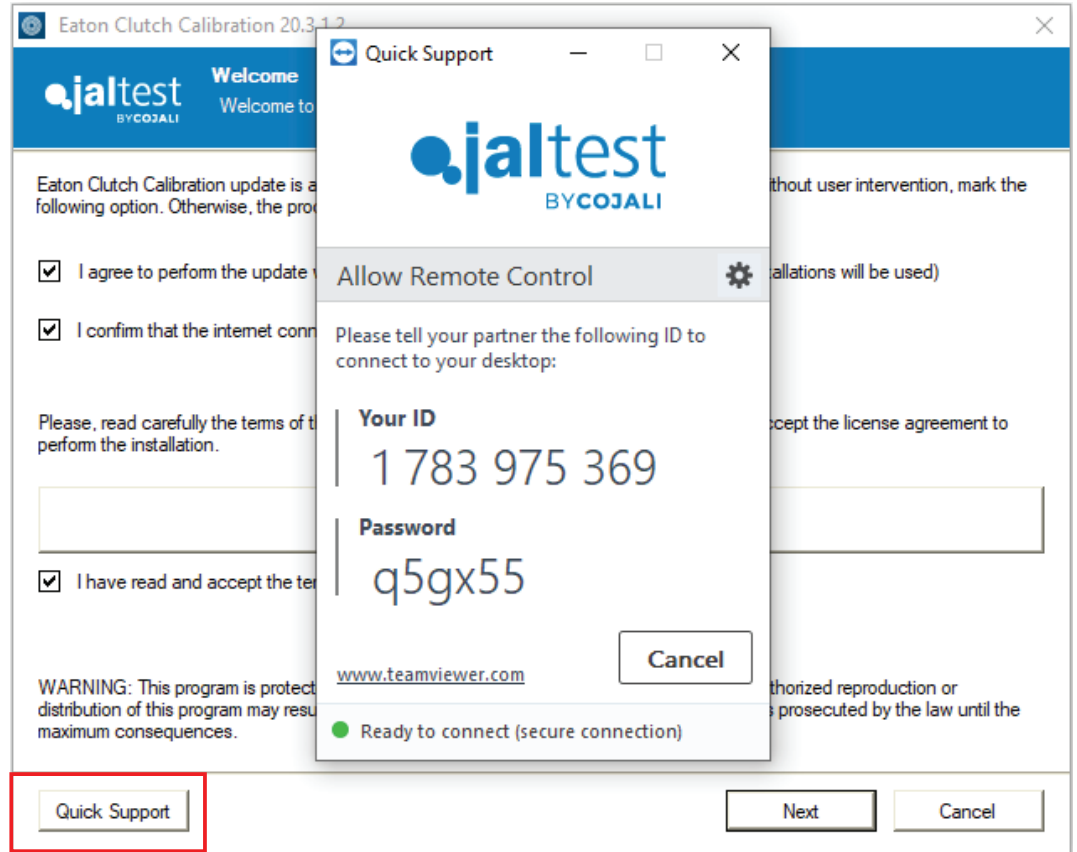




Updates

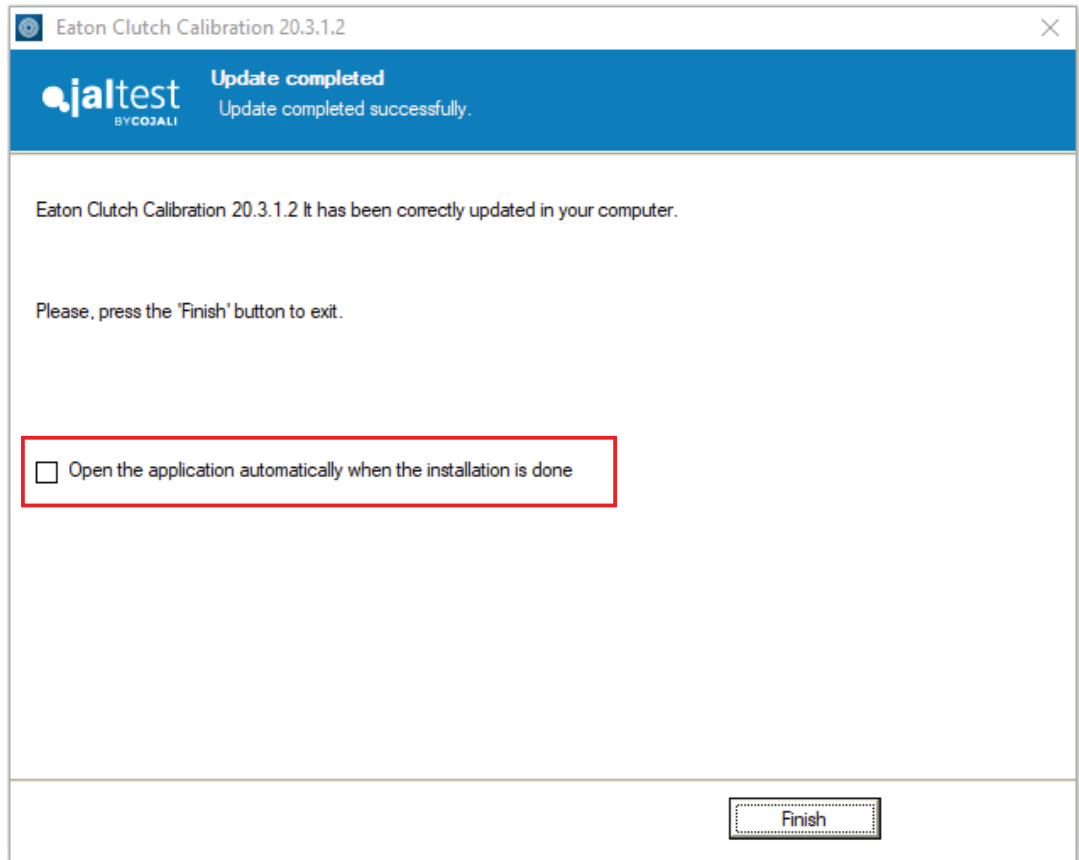
In case of need for assistance, click on “Quick Support” to request a Customer Support remote connection.

The process will take less than five (5) minutes. Time will vary depending on the PC configuration and performance.

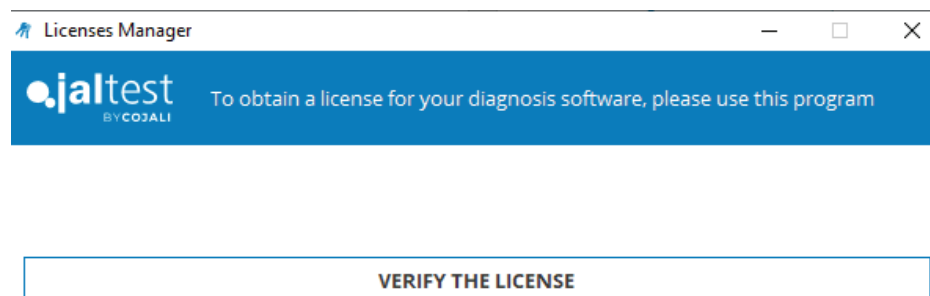


Updates

If desired, it is possible to select to launch the application automatically after the installation is done.

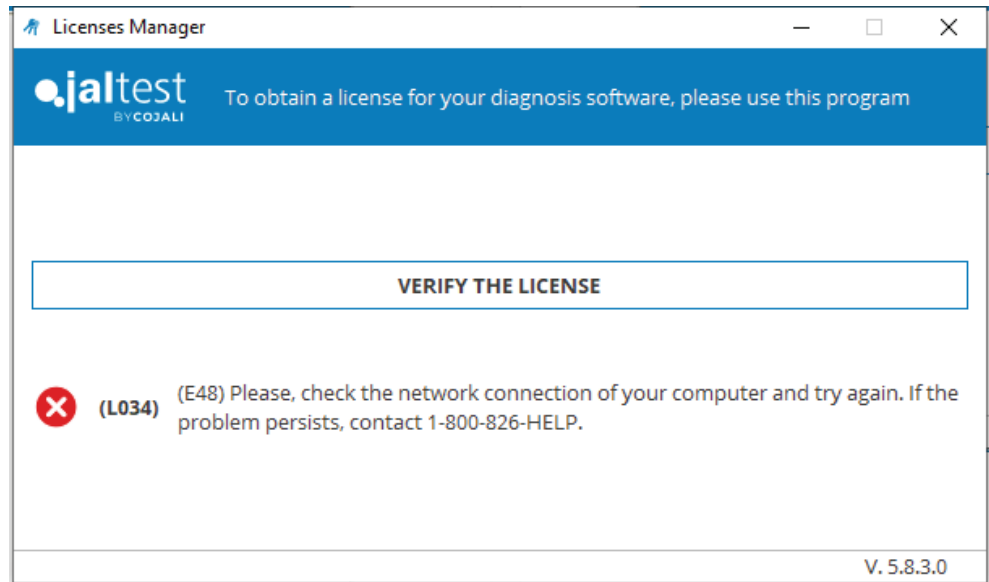


In case the license cannot be validated during the unattended installation, the following window message will appear to verify the license status.



Updates

Internet connection is required (this will be indicated by the software in case there is an issue).



Instructions

Eaton Advantage Automated Clutch Calibration will welcome you with the following launcher screen. The software launch will take approximately less than one (1) minute.



Instructions

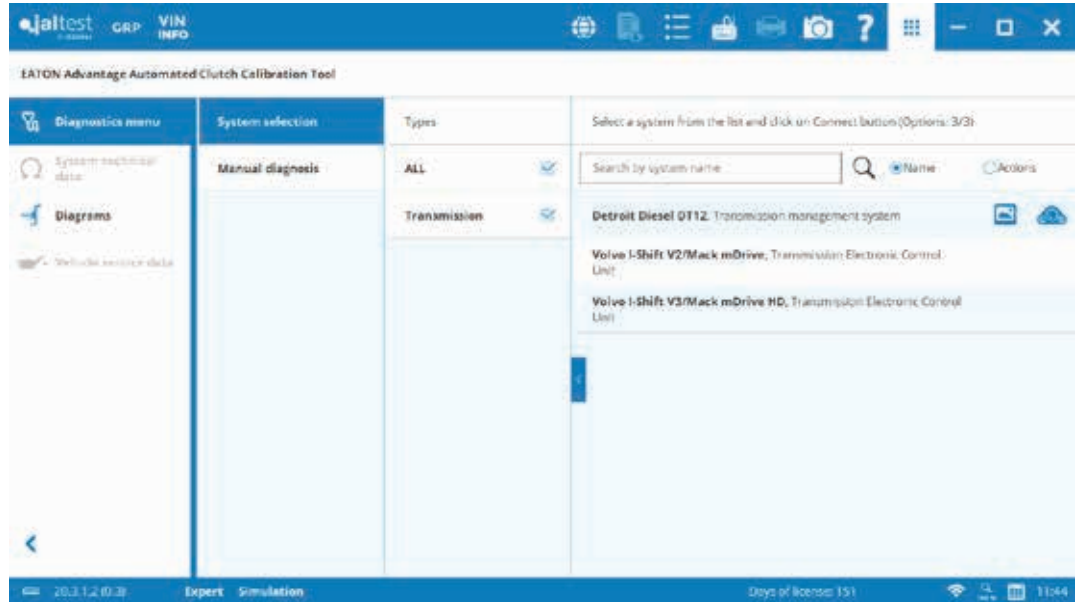
The next window you will see is the "System selection" menu. You will need to manually identify the transmission system you wish to connect to:

Detroit Diesel DT12

Volvo I-Shift V2 / Mack mDrive (Up to 2012)

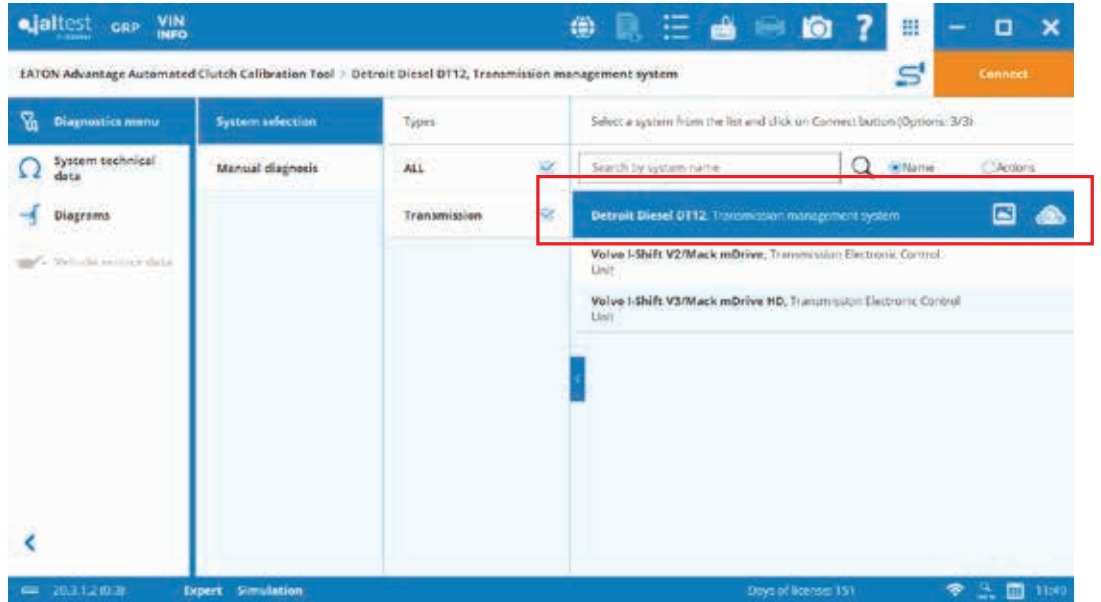
Volvo I-Shift V3 / Mack mDrive HD (From 2013)

Note: All three (3) systems use different communication protocols so there is no chance to establish a communication with a different transmission control unit.



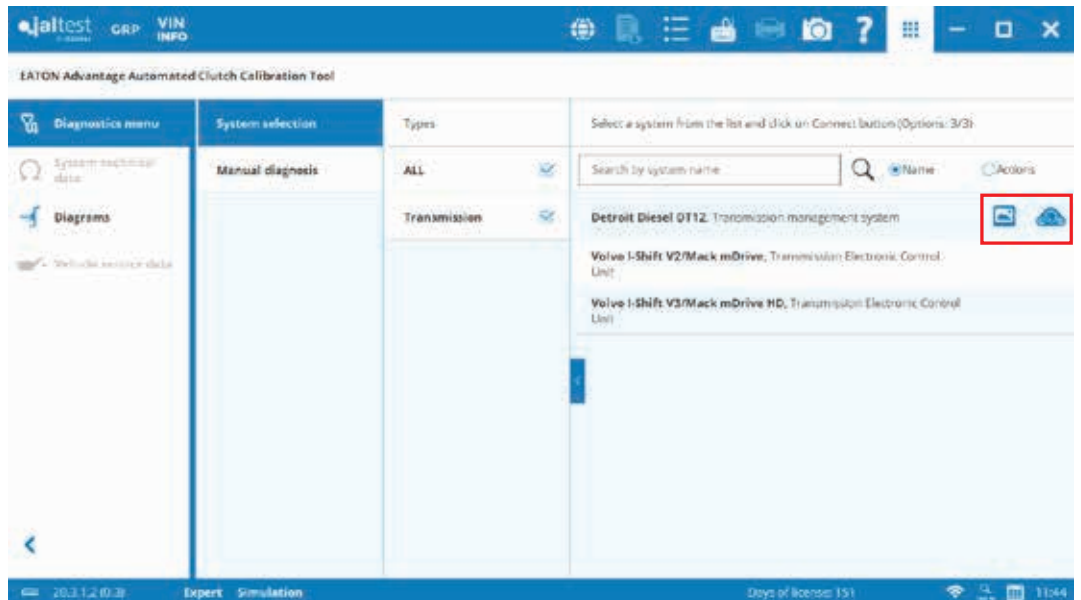
Instructions

The next step requires selecting the system. Once selected, all system-related information will be displayed, including the "Connect" button.



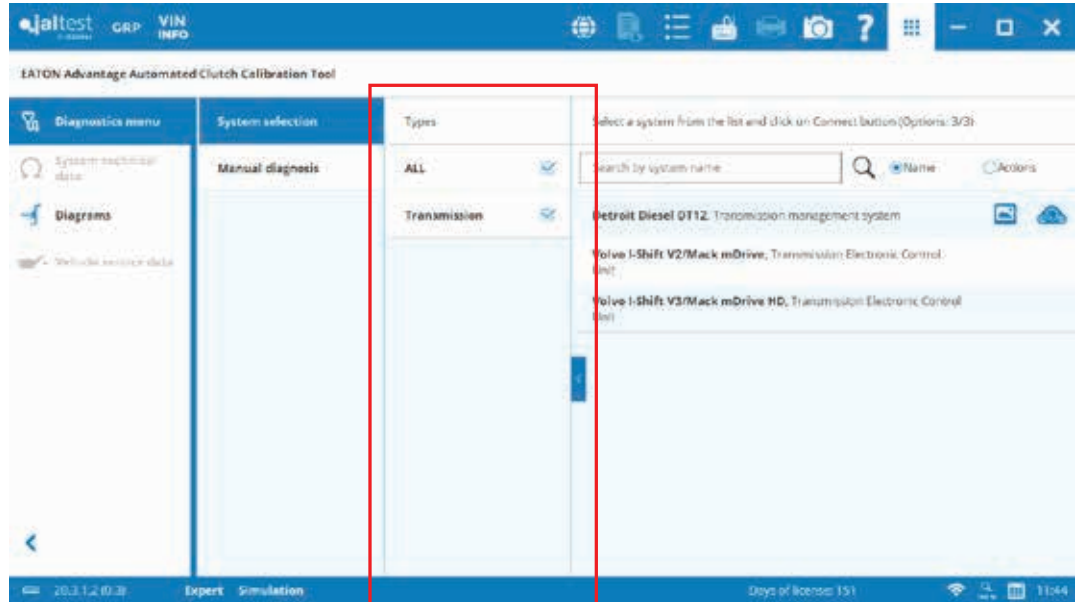
Additional icons may appear in the system line:

- An identification picture.
- Virtual instrument icon to open the System Display option.

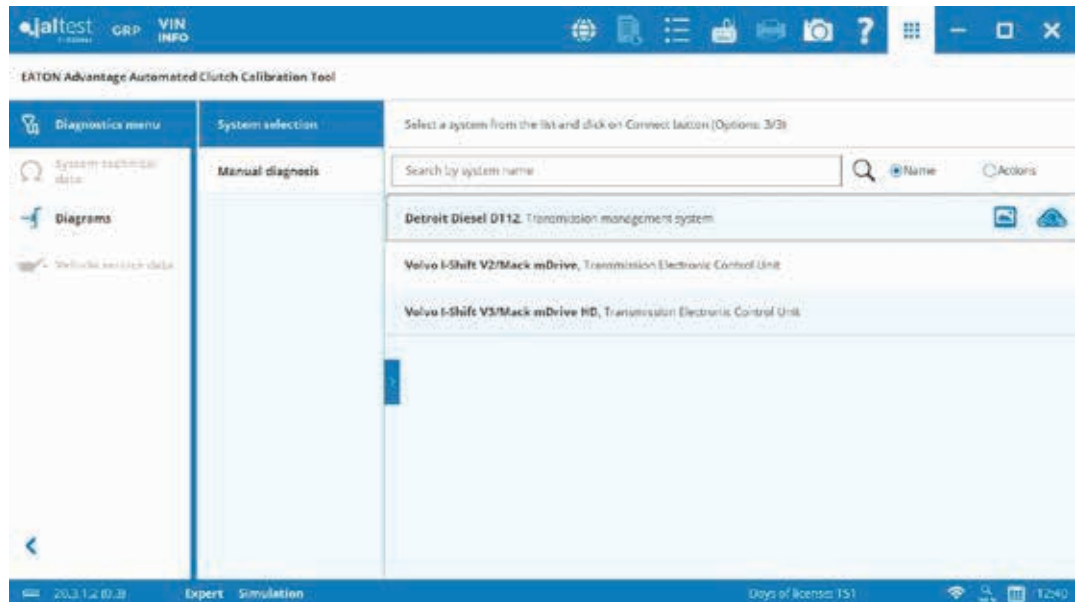


Instructions

If desired, this panel window can be hidden by clicking on the arrow icon.



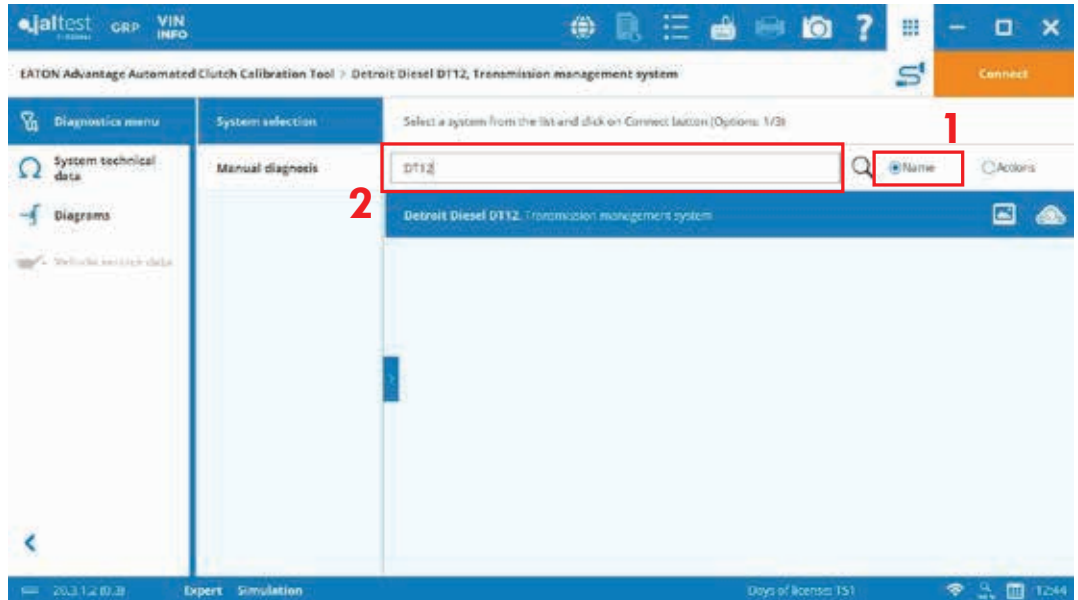
Same icon will restore its previous visualization.



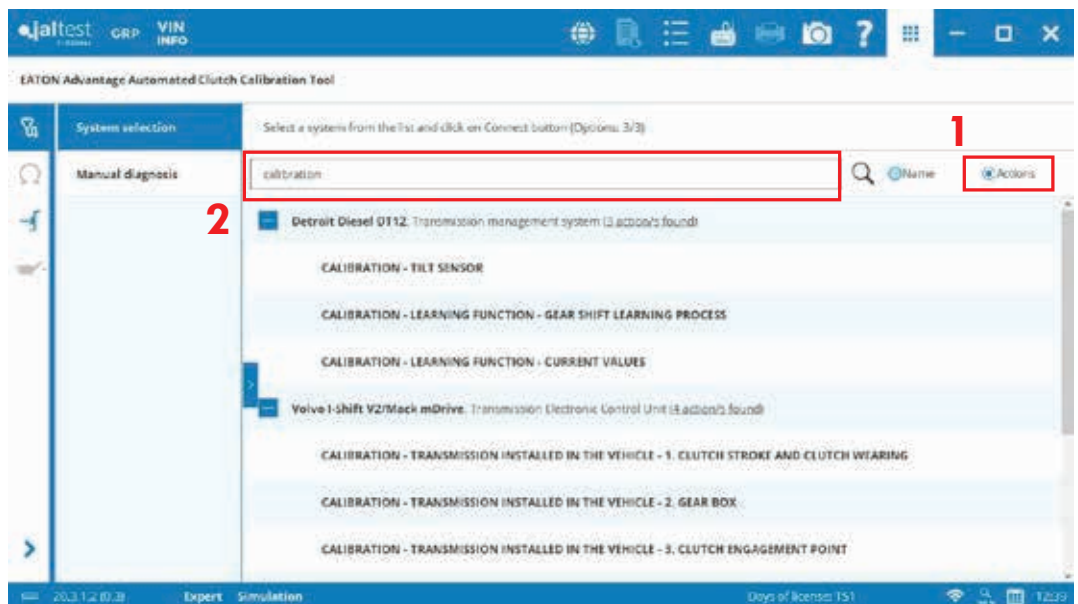
Instructions

A Search function is available in the "System selection" menu:

- Search by Name



- Search by Actions

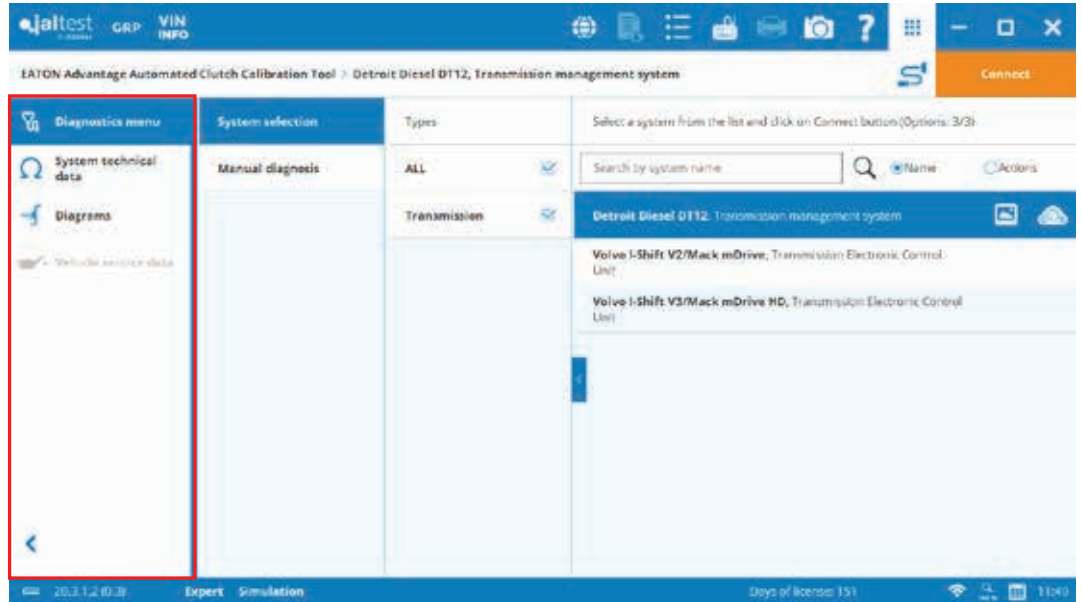


Instructions

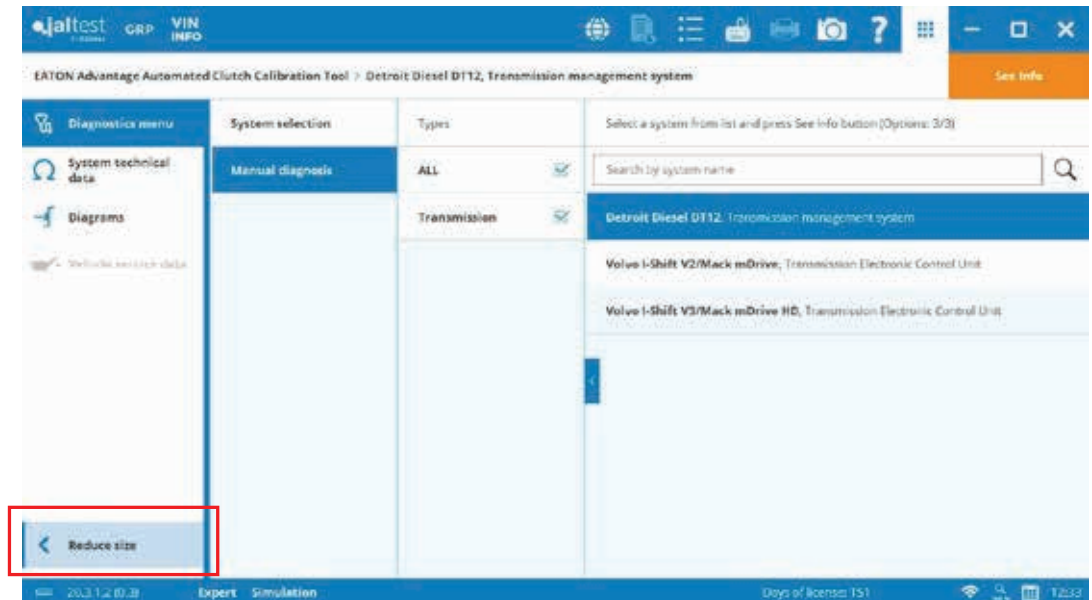
Technical information: System Technical Data, Diagrams and Vehicle Service Data.

Icons in grey mean that information is not available, on the current version, or that it does not apply.

This information helps technicians to access components' specifications, their locations and how they are connected to the electronic control units. Please, click on the different buttons to consult further details.

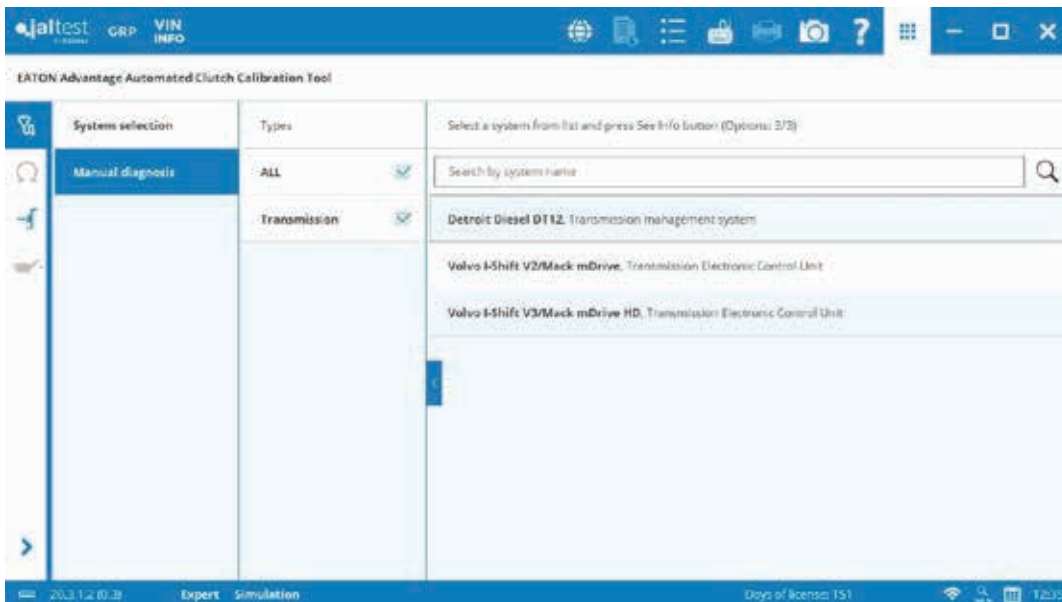


The technical information column can reduce its size.

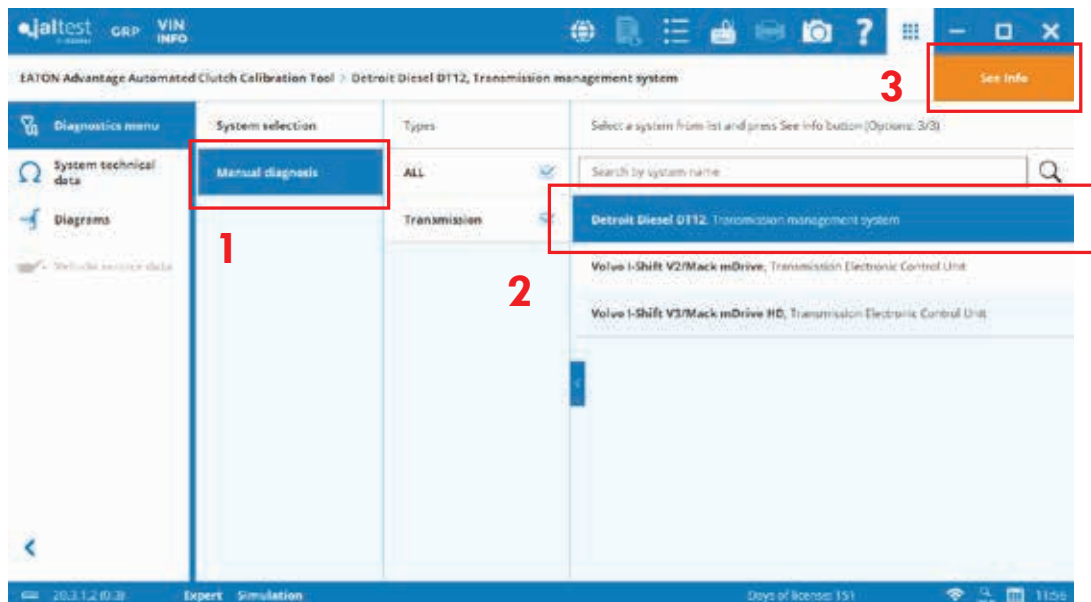


Instructions

“Manual diagnosis” menu: This feature allows the search by a fault code in case there is a need to remote assist someone on the road.

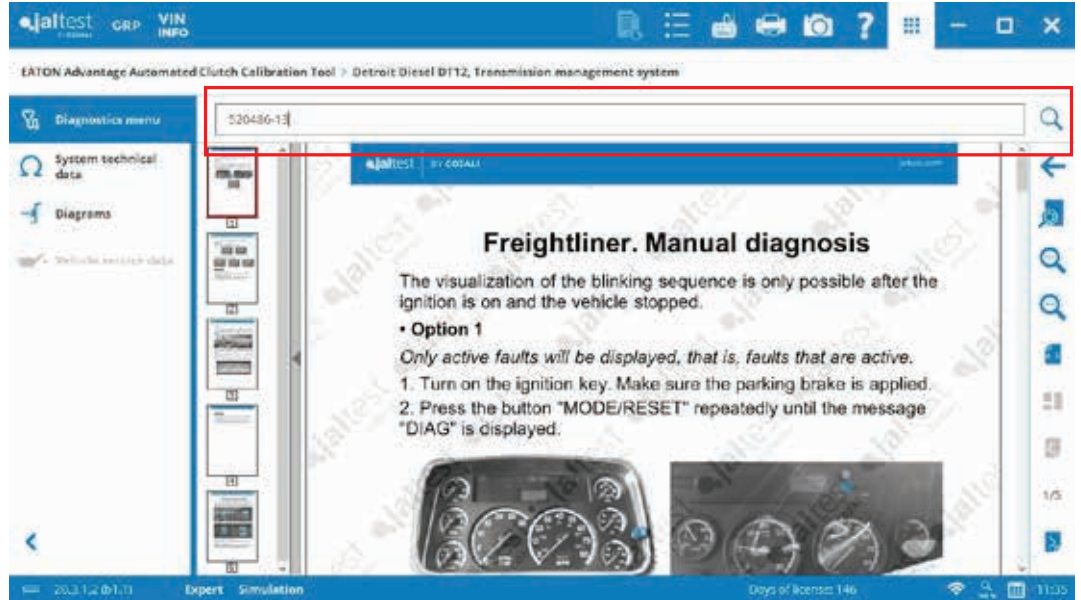


Click on “Manual diagnosis”, select your system and then click on “See info”

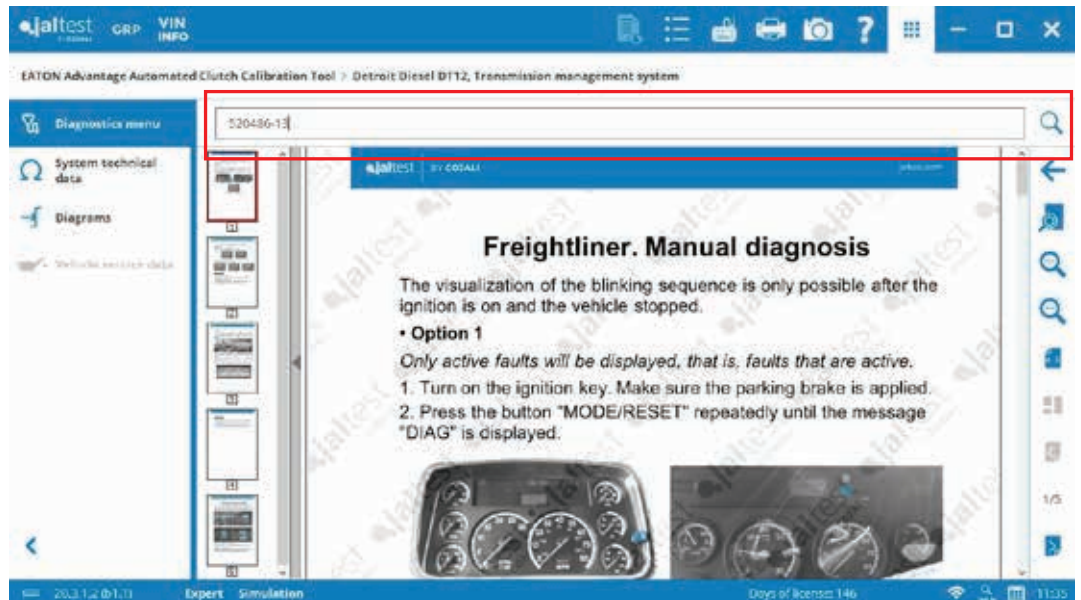


Instructions

Follow the instruction given in the technical procedure and enter the fault code number. A magnifying glass tool is available.

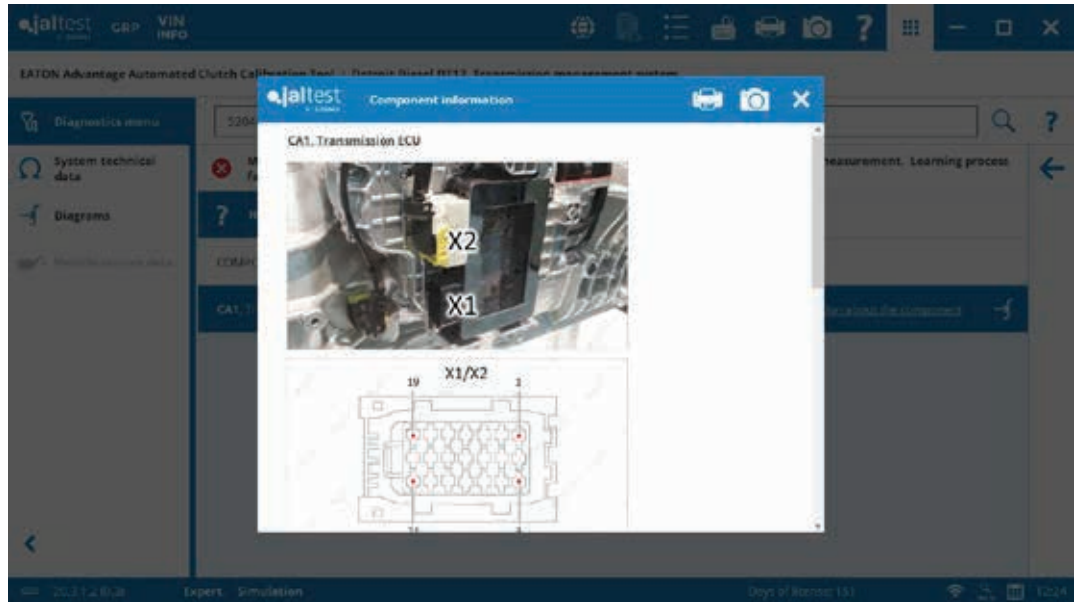


Fault code description and related technical information will be displayed.



Instructions

The next picture provides an example when clicking on “See information about the component”.

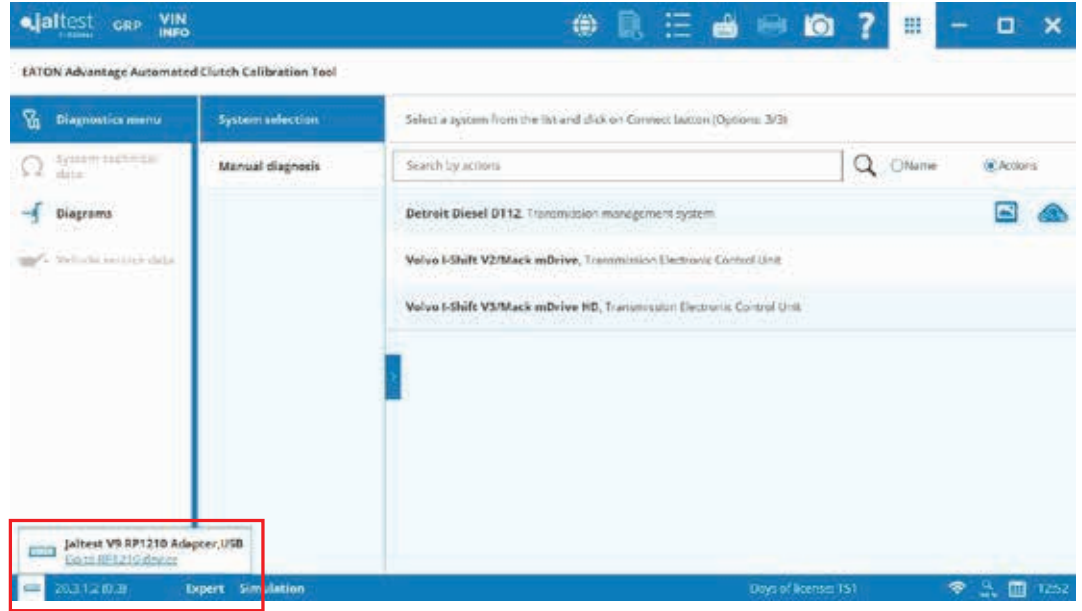


Instructions

Explanation of the icons displayed at the bottom:

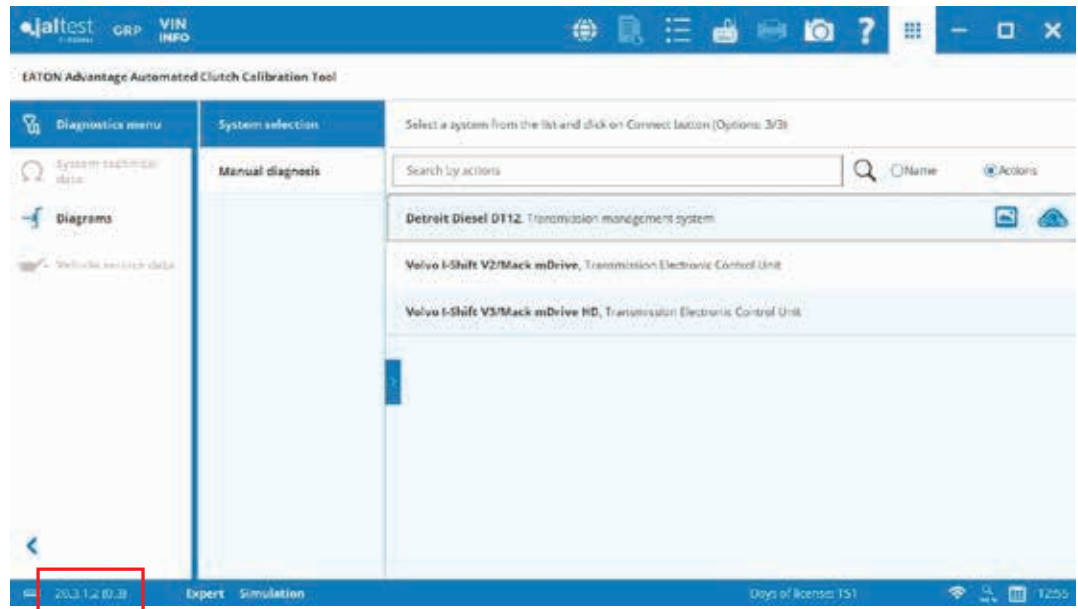
Device Icon

A light will flash when communication is established between the RP1210 device and the ECU. This icon is also used to know what an RP1210 vendor and the communication channel (USB or Wireless) is configured. Additionally, a hyperlink appears in case of changing to a different RP1210 vendor.



Version Installed

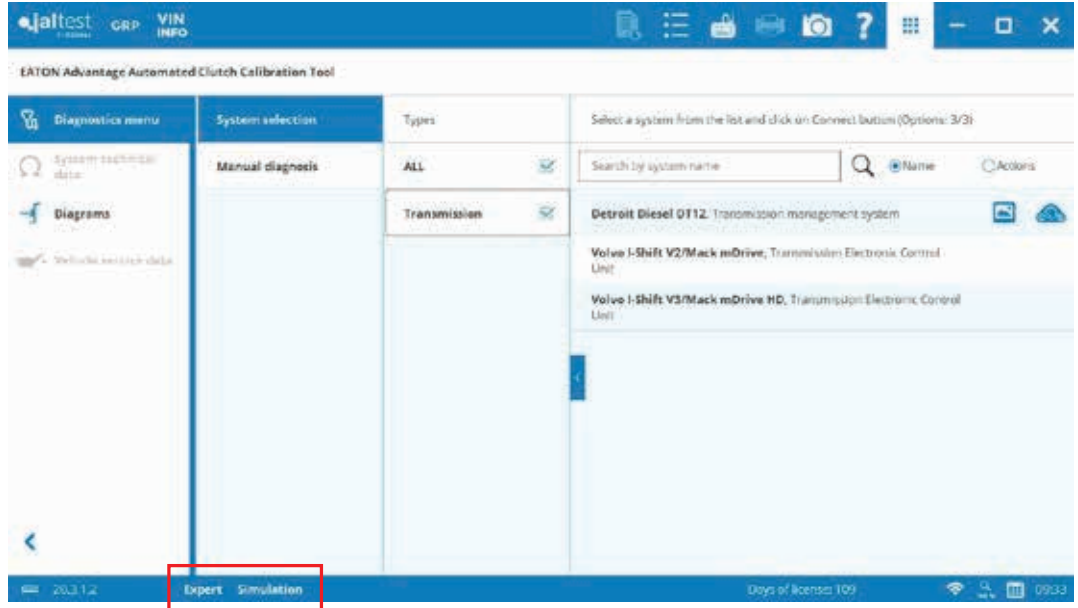
Typical structure: 20.3.1.2 (Year. Third version, of that year. Internal coding. Internal coding). Additional numbers will appear in case the version is a beta.



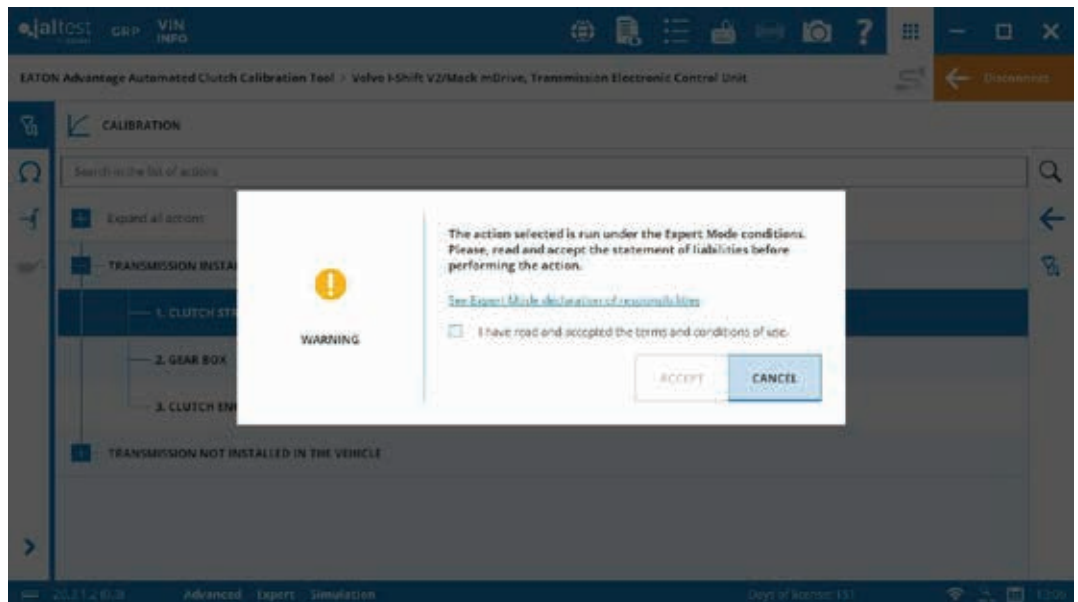
Instructions

Expert/Simulation Modes

“Expert Mode” will always be displayed by default, meaning that the “Expert Mode” is always enabled.



Actions which modify the ECU memory or require advanced knowledge will warn that the action is under “Expert Mode.”



Instructions

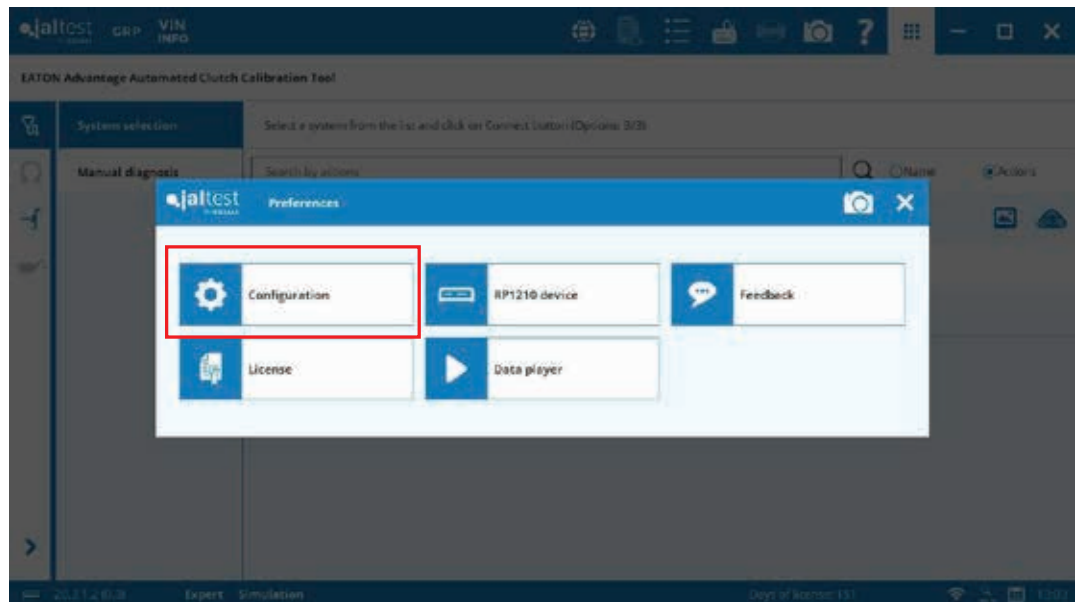
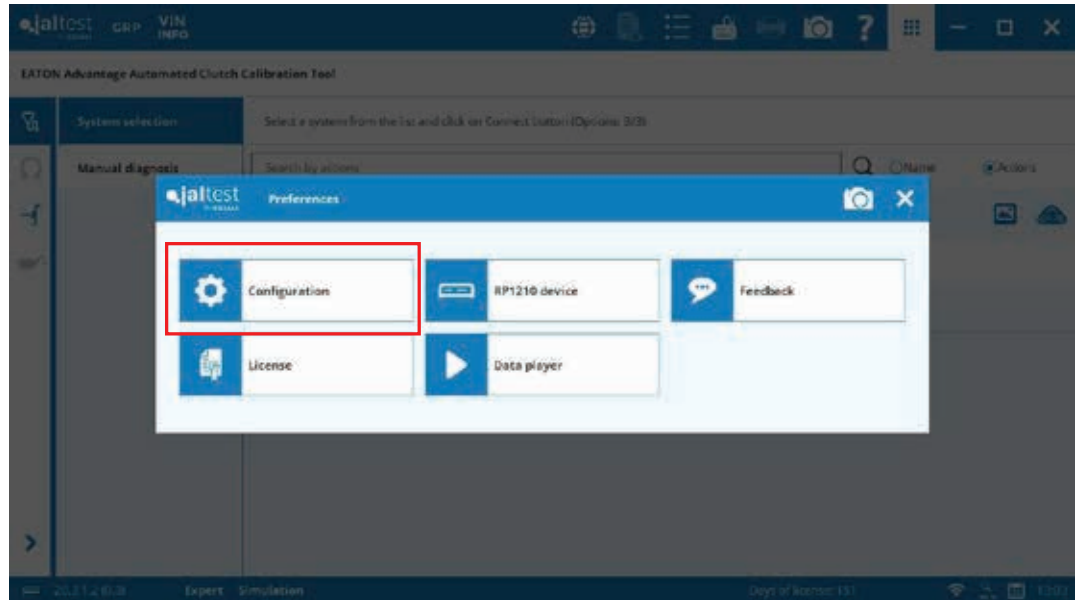
Expert/Simulation Modes

“Simulation Mode” is only available for Cojali, Eaton employees and its distributors. This mode allows you to connect to the systems without having a physical connection to any truck and device.

Note: Do not perform diagnostics on a system if “Simulation Mode” is active.

The sequence to enable this mode is to enter SCO and the code given for your equipment.

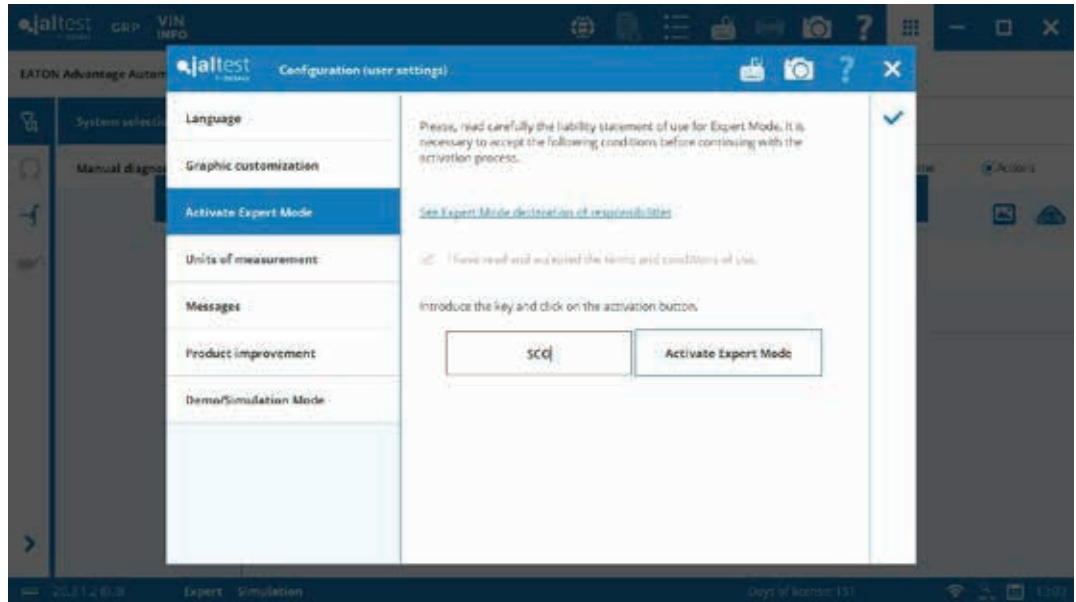
To enable it, go to “Preferences” menu and select “Configuration” section.



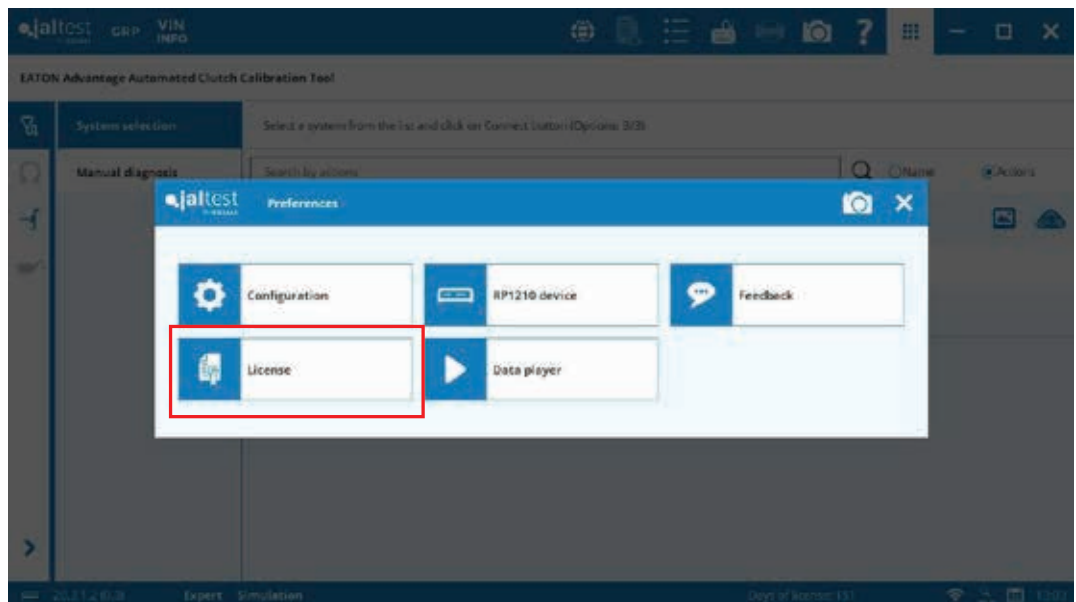
Instructions

Expert/Simulation Modes

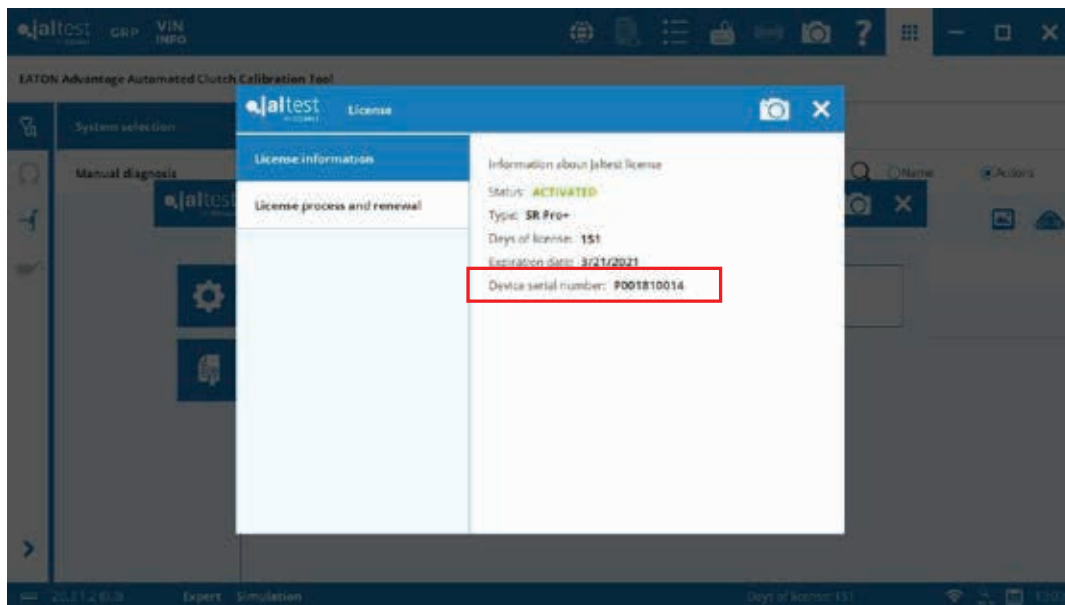
In the “Activate Expert Mode” tab, enter SCO and then your simulation code.



The simulation code varies for each installation. Serial number must be supplied to generate this code. This information can be obtained in the “License” section from the “Preferences” menu.

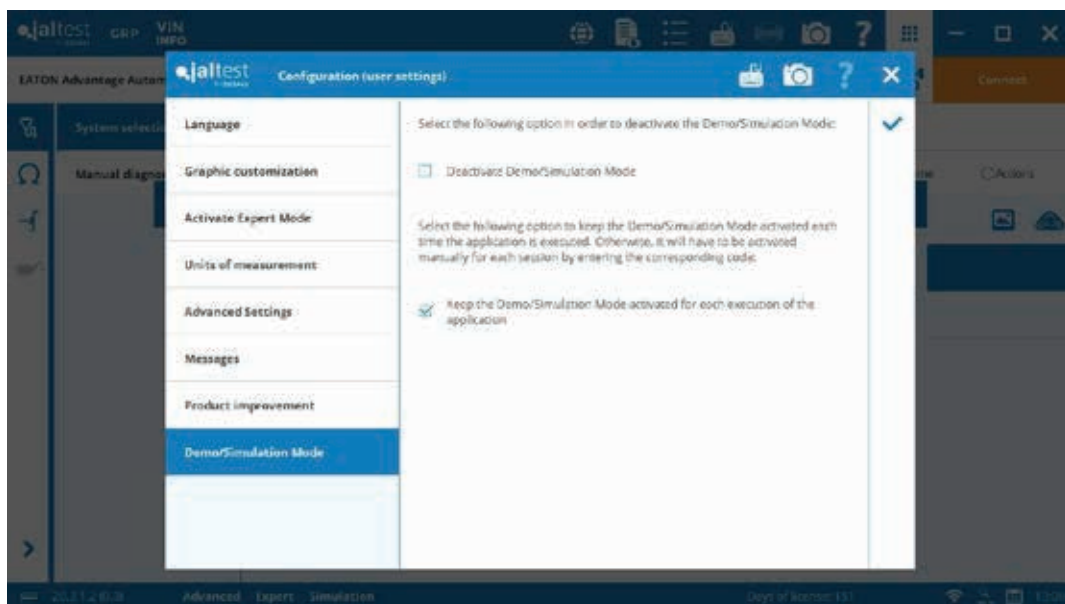


Instructions



Expert/Simulation Modes

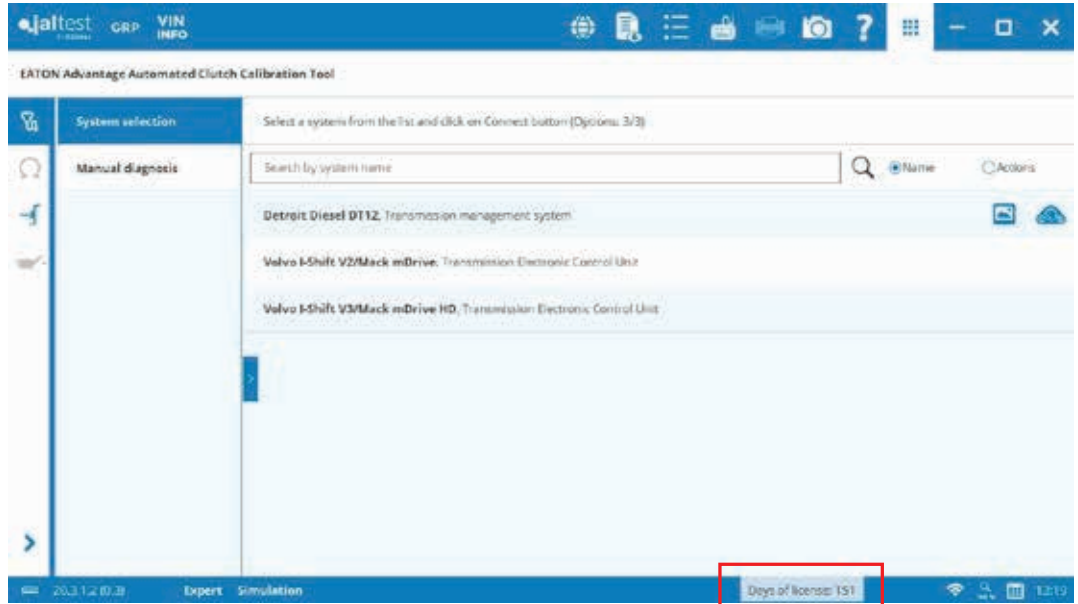
“Simulation Mode” can be kept active for following diagnostics sessions. Also, there is an option to disable this mode.



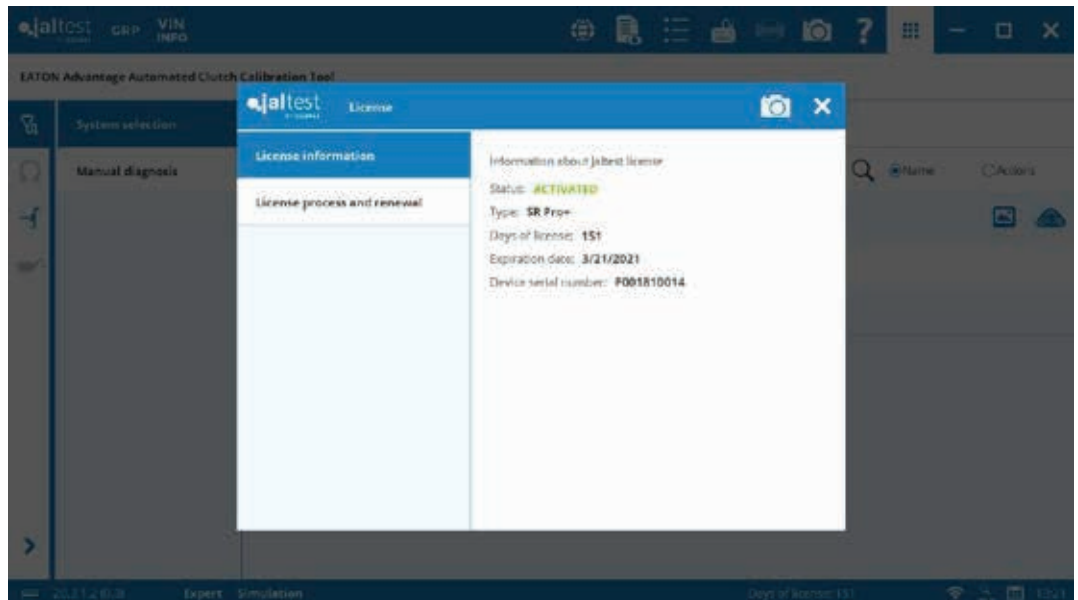
Instructions

Days of License Remaining

In addition to this number, a grace period of thirty (30) days is available.



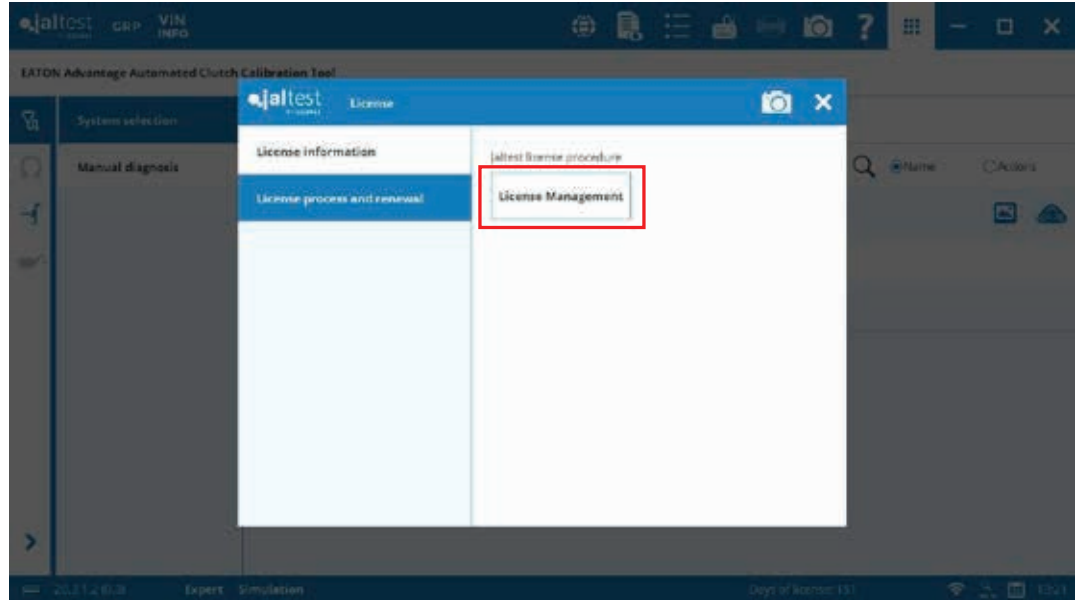
For further details, it is possible to click on the link to access a window with additional information about the license serial number, expiration date and the status of the license.



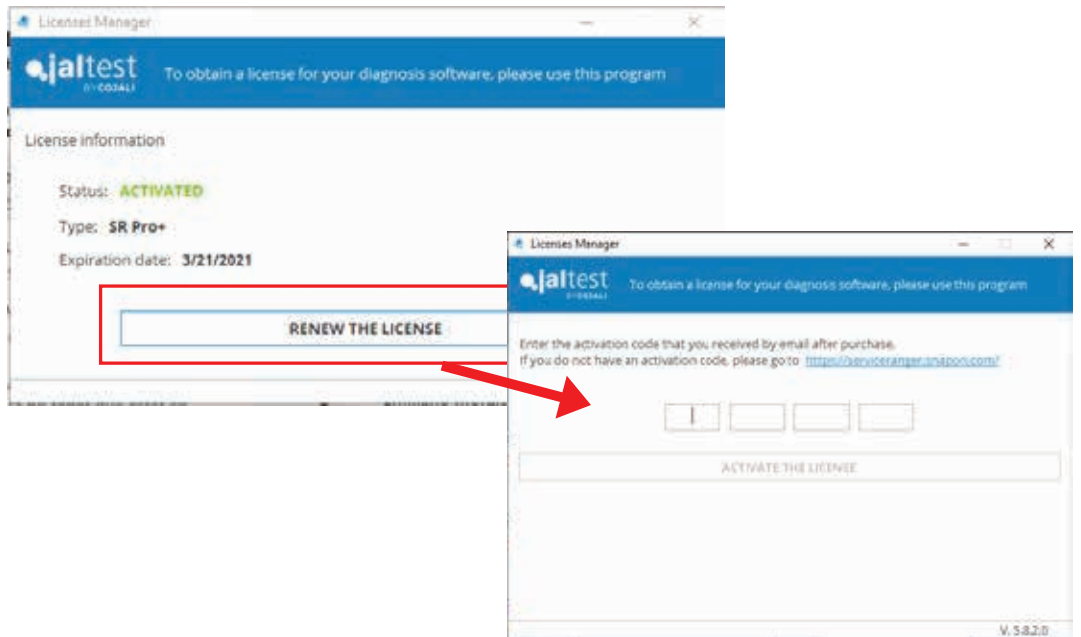
Instructions

Days of License Remaining

From this window, a second tab is displayed from which it is possible to manage and enter a new activation code. This is an alternative way in case of purchasing a renewal before the current license expires and the expiration date would not have been updated, normal case because the license status is checked regularly through automatic processes such as registration (every 6 months as maximum) process and every time an update is done as well.



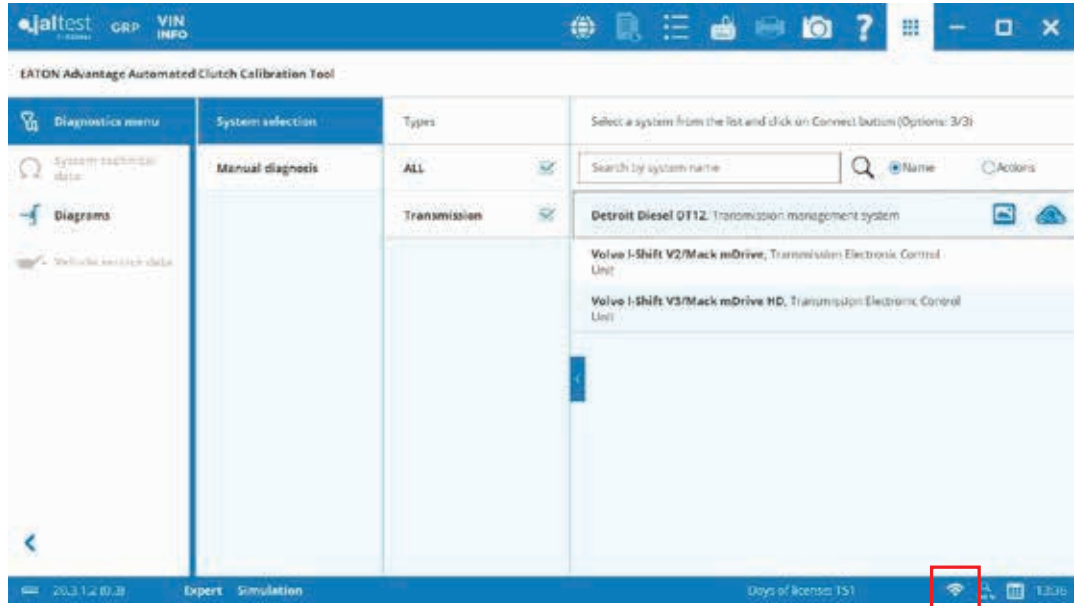
Furthermore, if the license is expired, this previous window will be the first window shown.



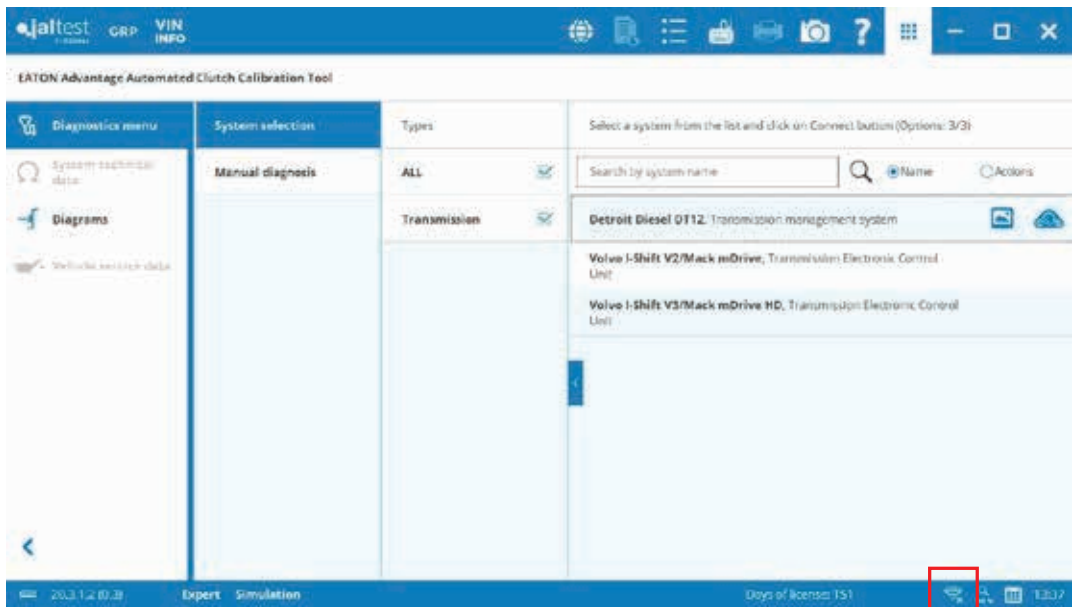
Instructions

Internet connection icon

Internet connection is detected.



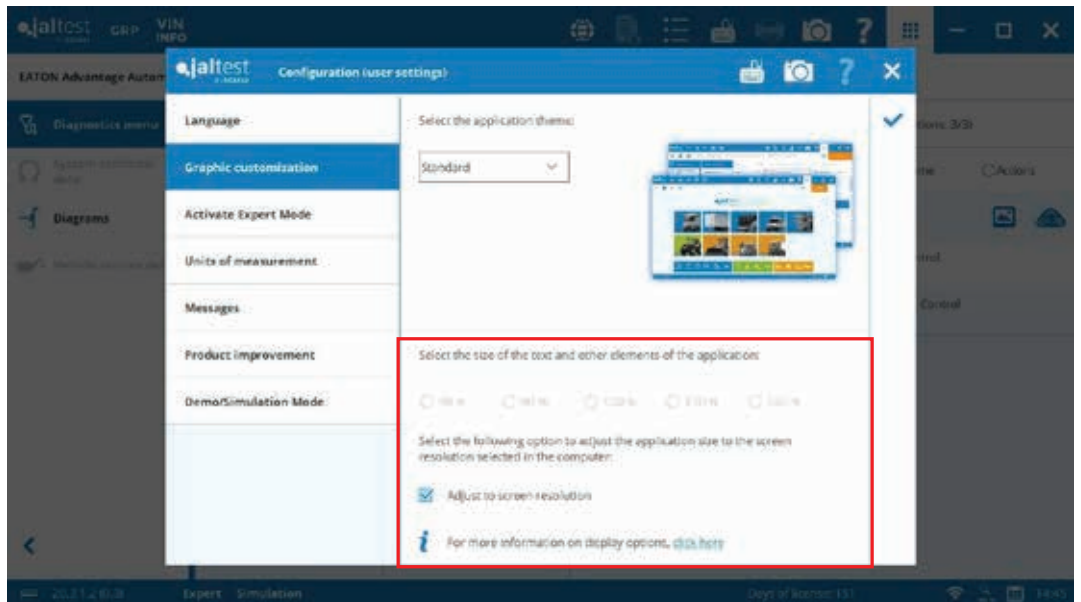
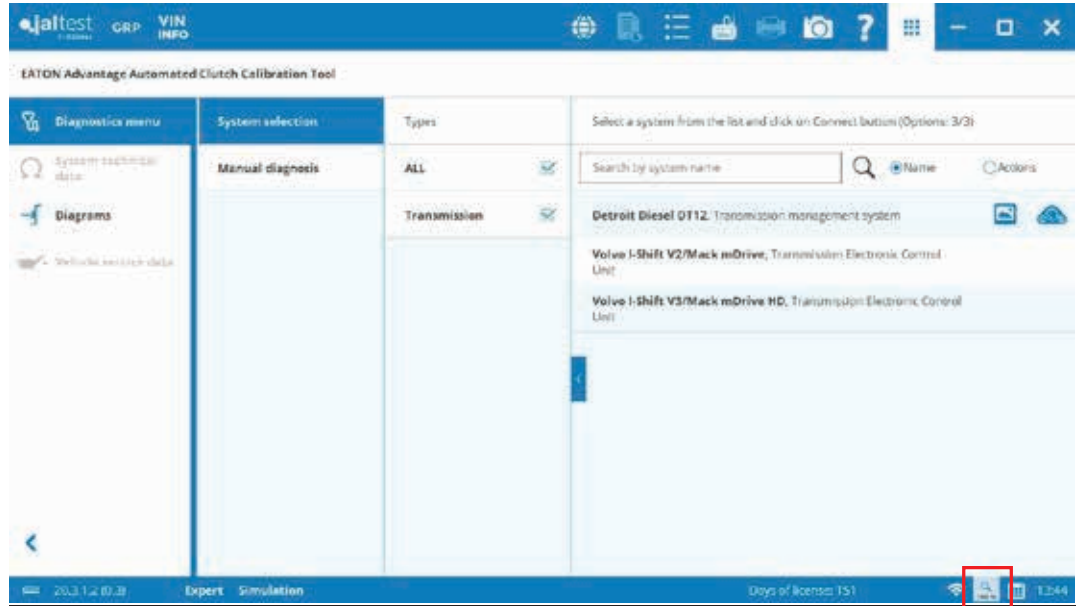
Internet connection is not detected. Internet connection is required to the diagnostics functions.



Instructions

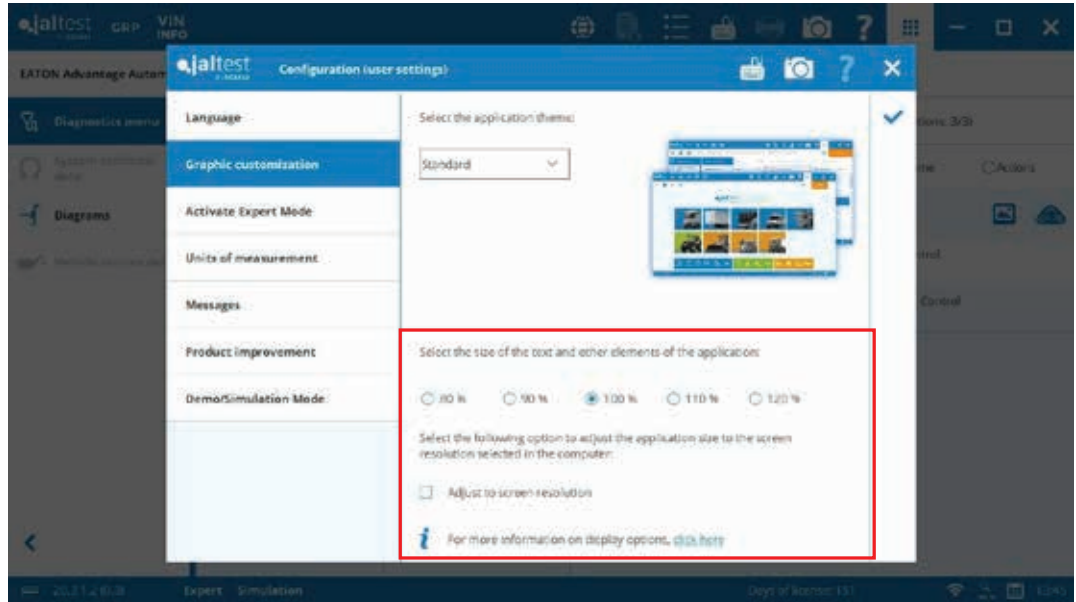
Graphic customization

Size of the text and other elements of the application can be modified. By default, it is recommended to use "Adjust to screen resolution".

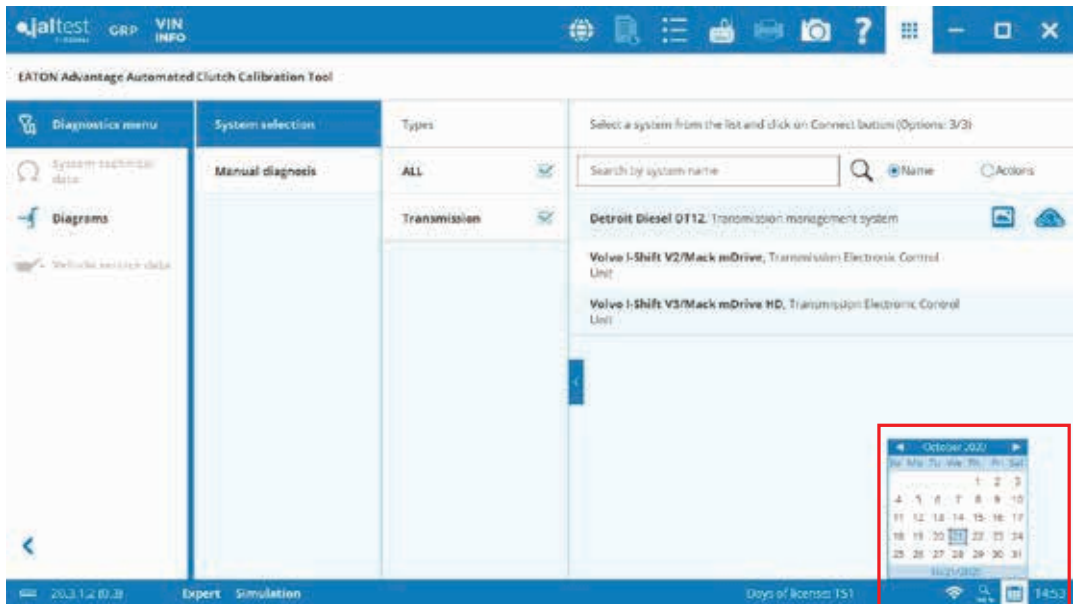


Instructions

Special attention to the note in case external screen or projector is connected.



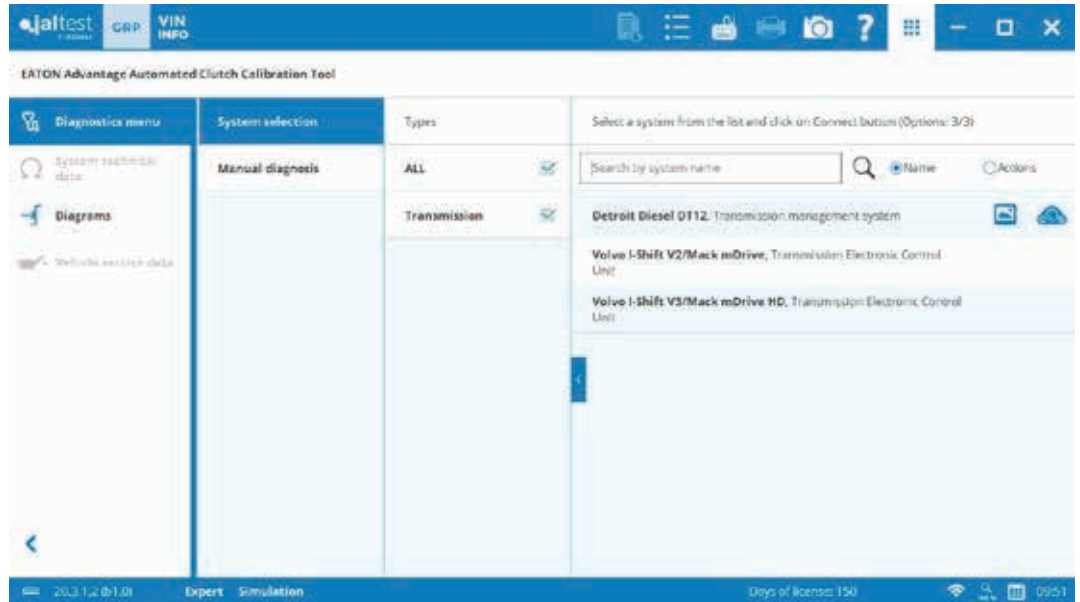
Calendar and Clock



Instructions

Explanation of the icons displayed at the top:

GRP



Left Margin

Customer list

Vehicle list

Reports

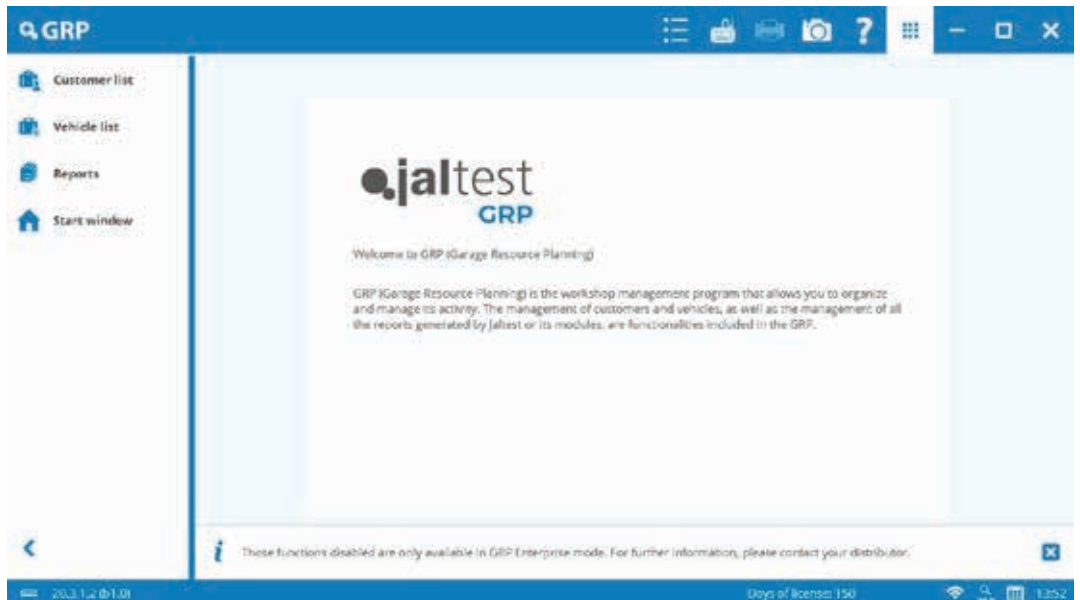
Start window

Top Margin

Preferences (See page 45.)

Virtual keyboard (See page 49.)

Screenshot (See page 50.)



Instructions

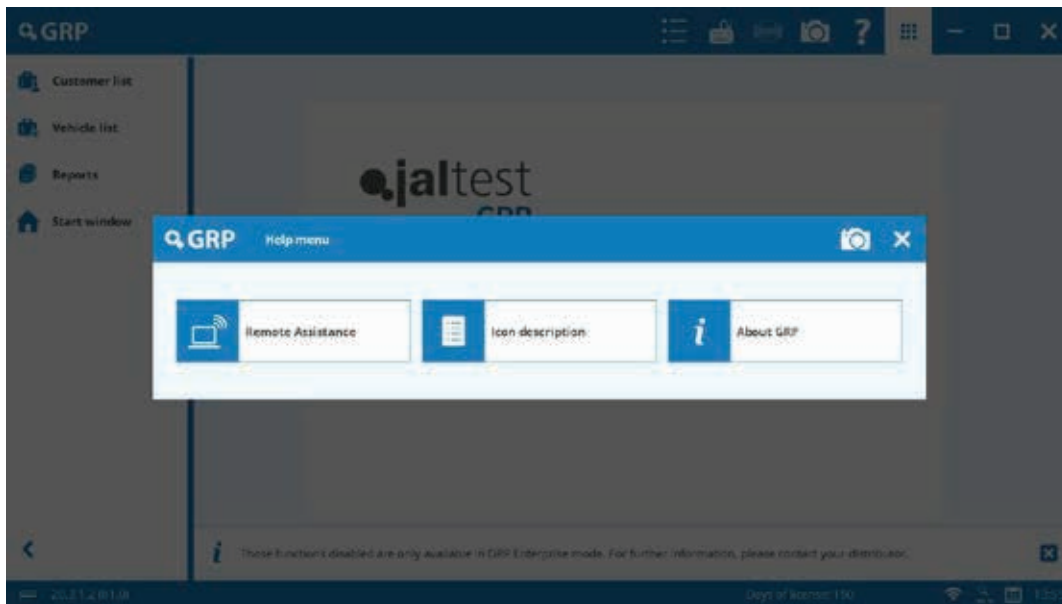
Help Menu

Icon Description (See page 53.)

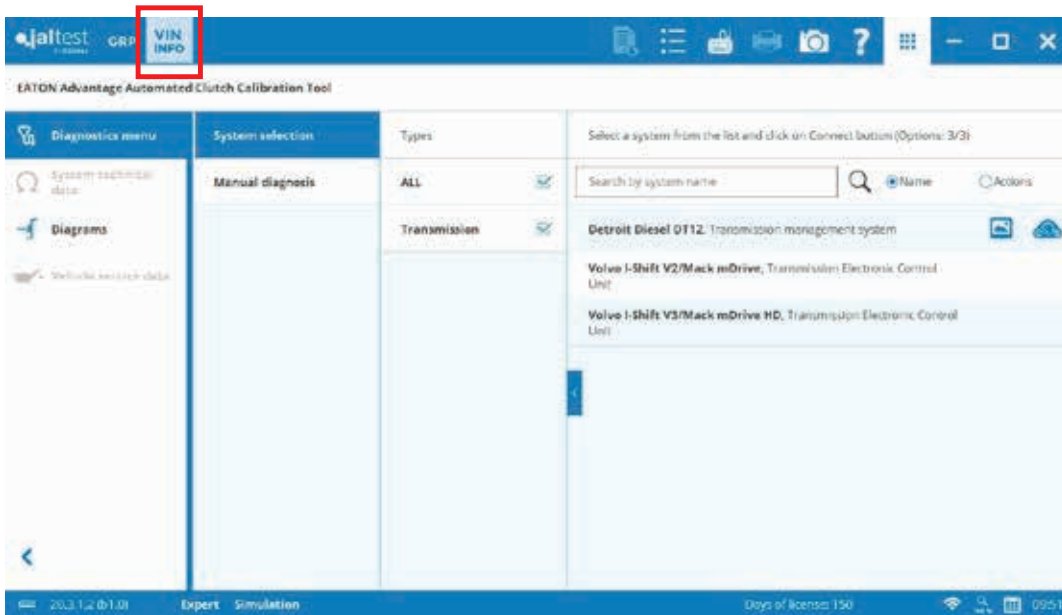
Remote Assistance (See page 52.)

About GRP

Show/Hide Icon



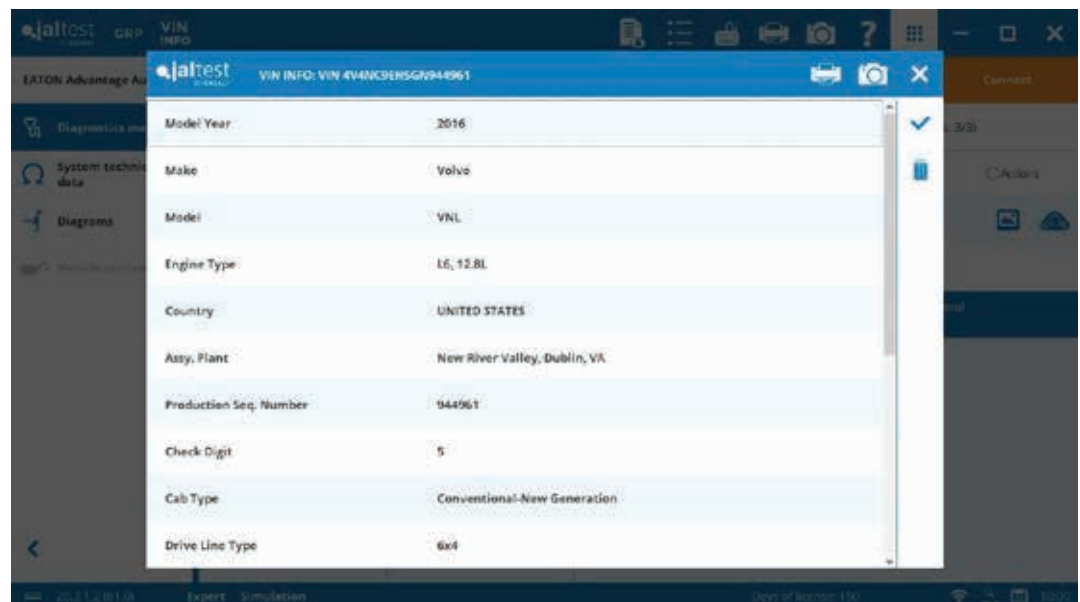
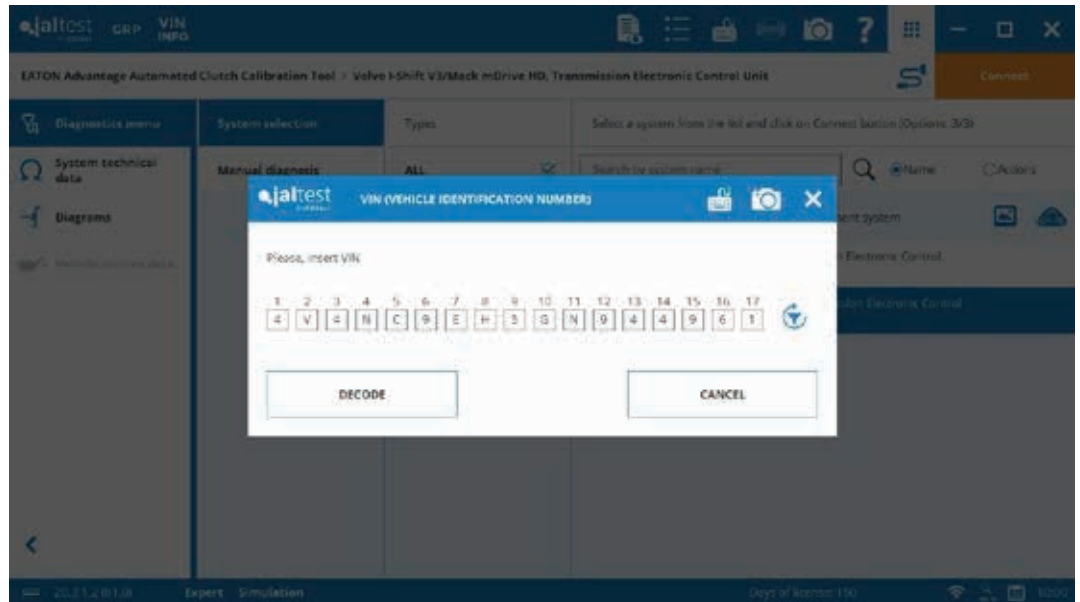
VIN Info



Instructions

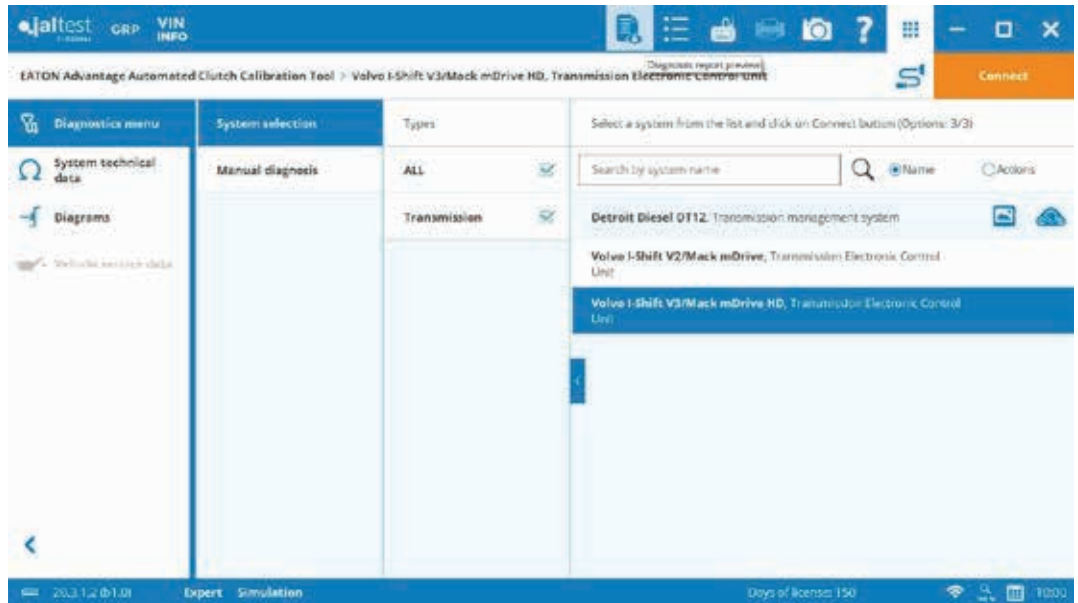
VIN Info

Enter all seventeen (17) digits of the VIN number. In case the ECU offers this information in its memory, the VIN number will be automatically pulled-out and decoded.



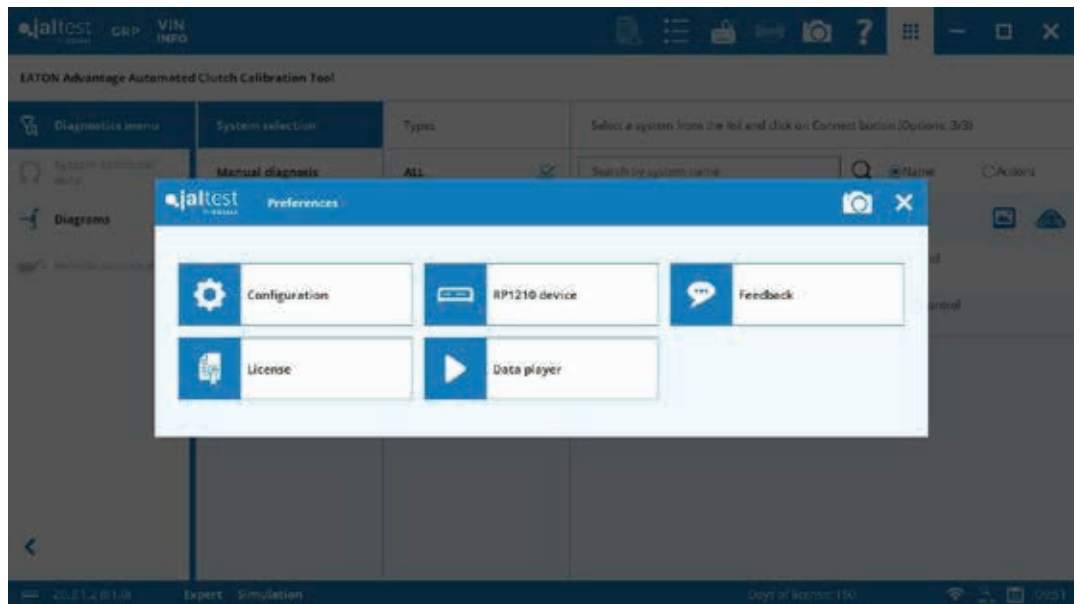
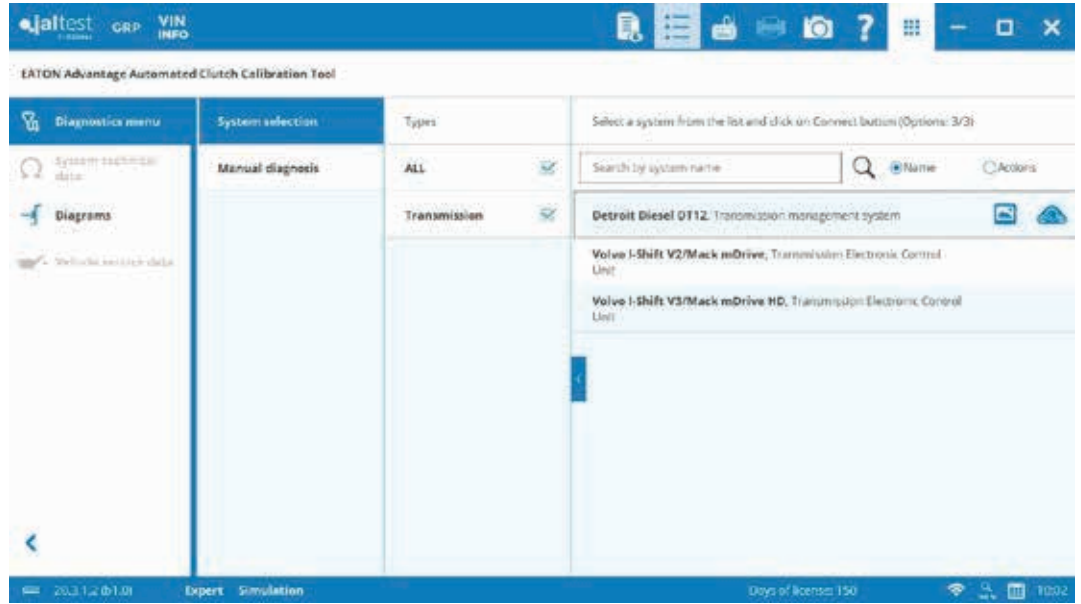
Instructions

Diagnostic Report Preview



Instructions

Preferences



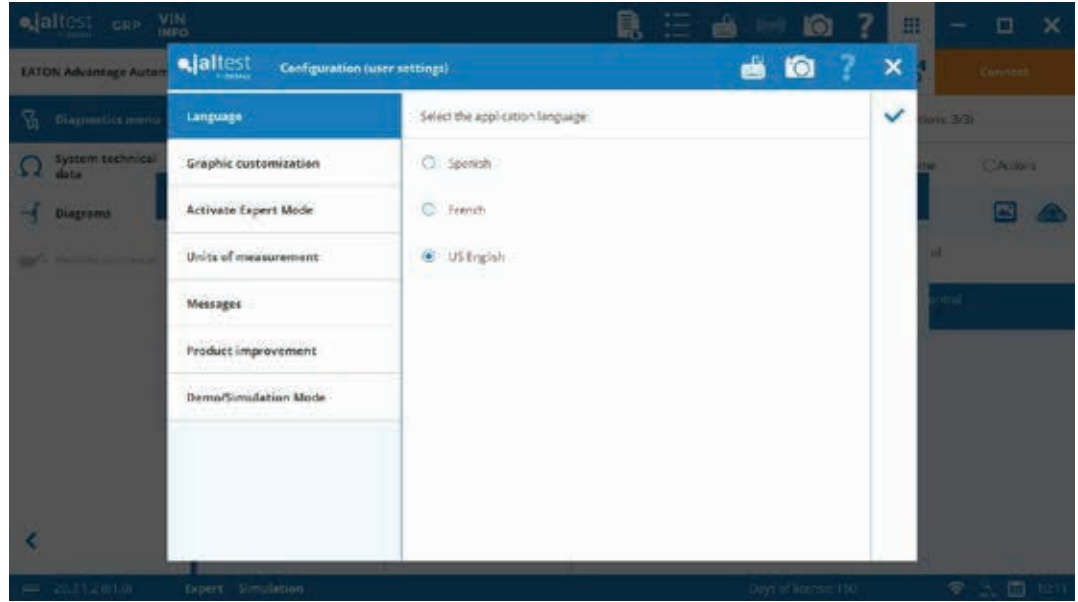
Instructions

Configuration

Language

Graphic Customization (See pages 39-40)

Activate Expert Mode (See pages 32, 34.)



Configuration

Units of Measurement

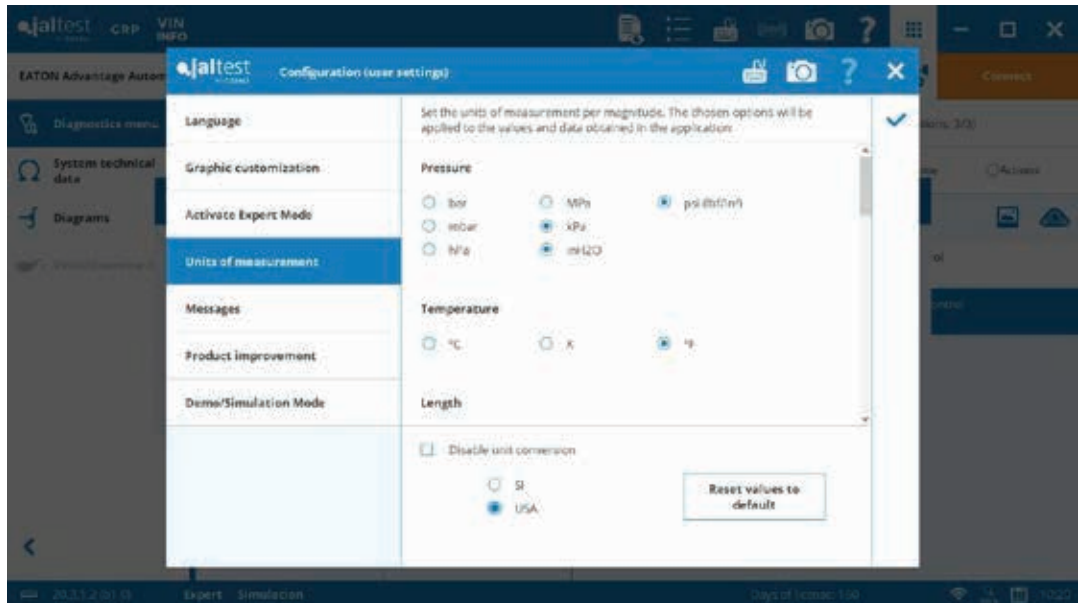
By default, the measurements used are US units, but this can be customized. Especially useful for Canadian market.

Messages

Some messages with the option of "do not show or ask again..." will be displayed during the use of the software. This can be restored with this option.

Product Improvement (See pages 14-15.)

Simulation Mode (See page 33.)



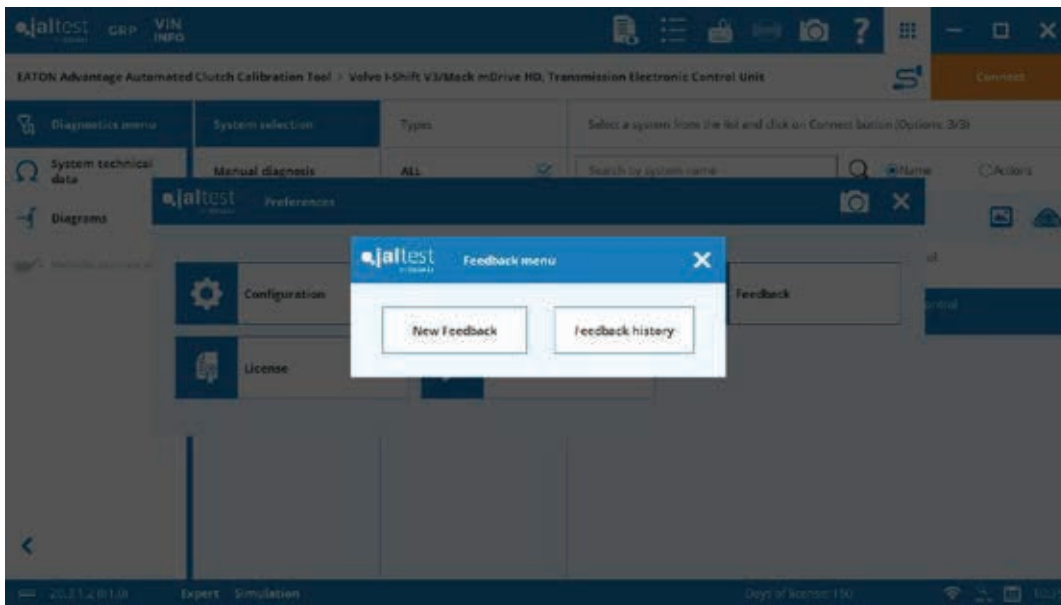
RP1210 Device

(See page 31.)

Instructions

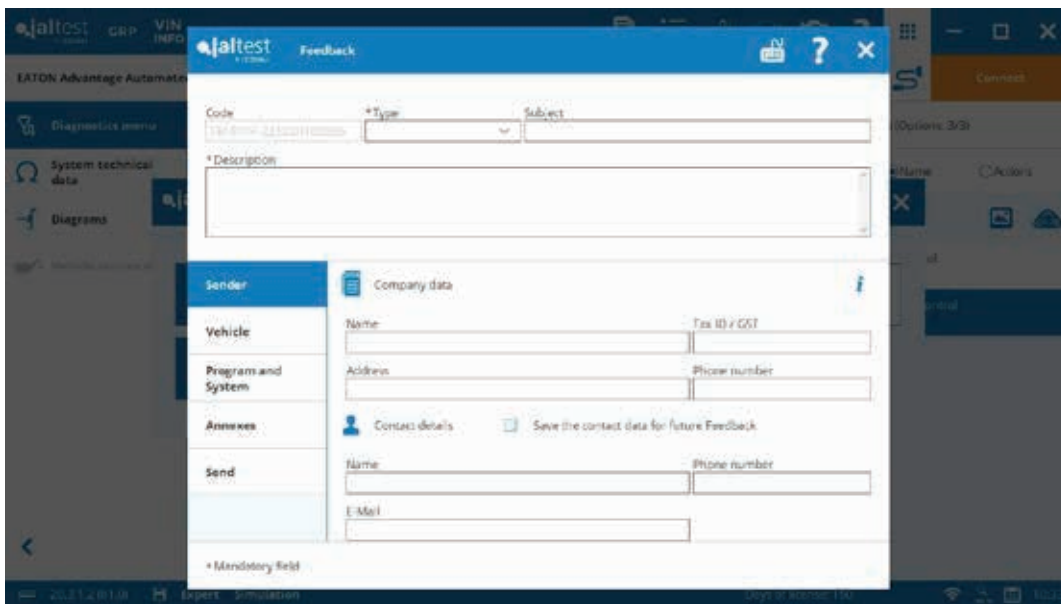
Feedback

The software allows for sending suggestions, errors or questions directly to Cojali Engineering. This is very useful when an issue occurs because the software attaches a Log from the vehicle's data bus.



Feedback

New Feedback

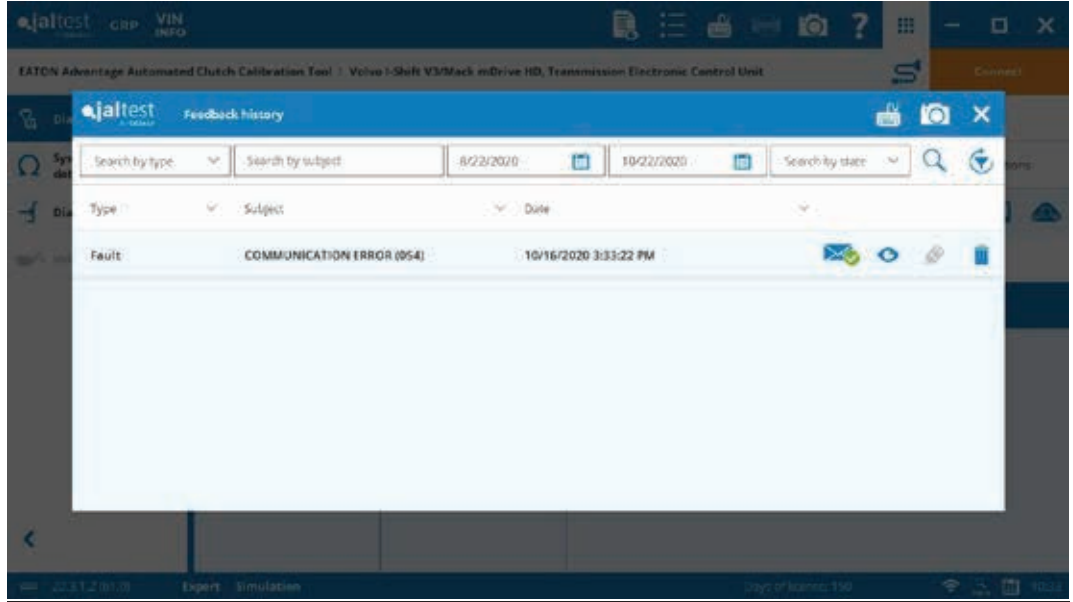


Instructions

Feedback

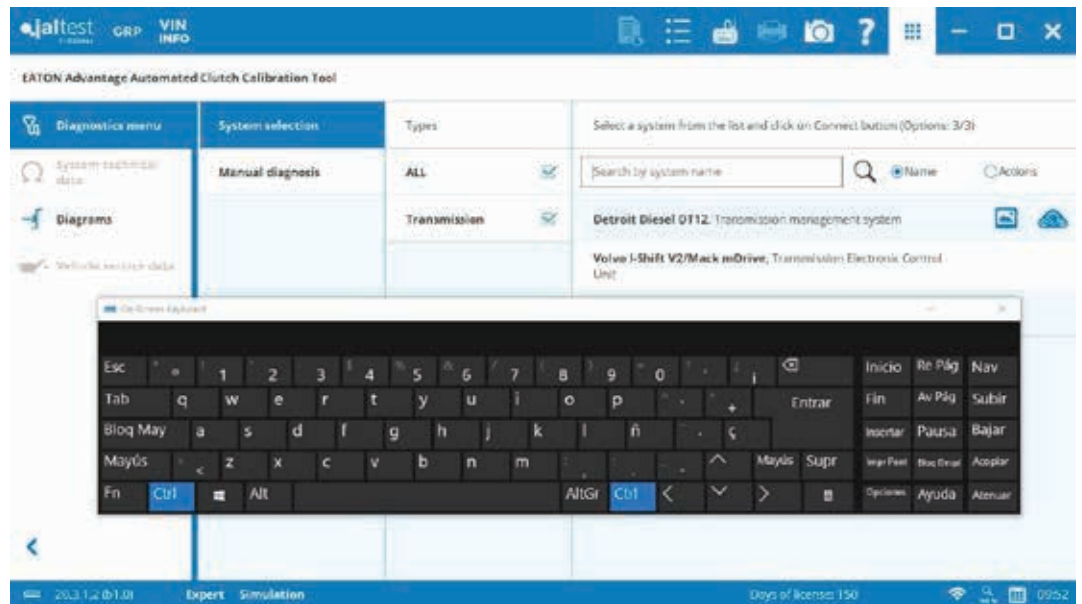
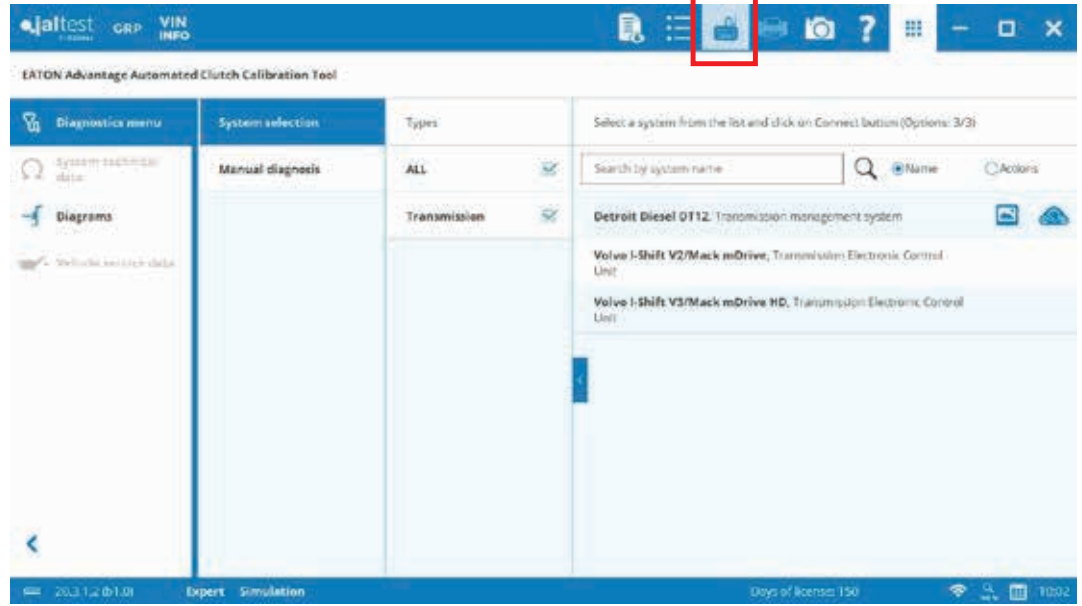
Feedback History

License (See pages 8-9)



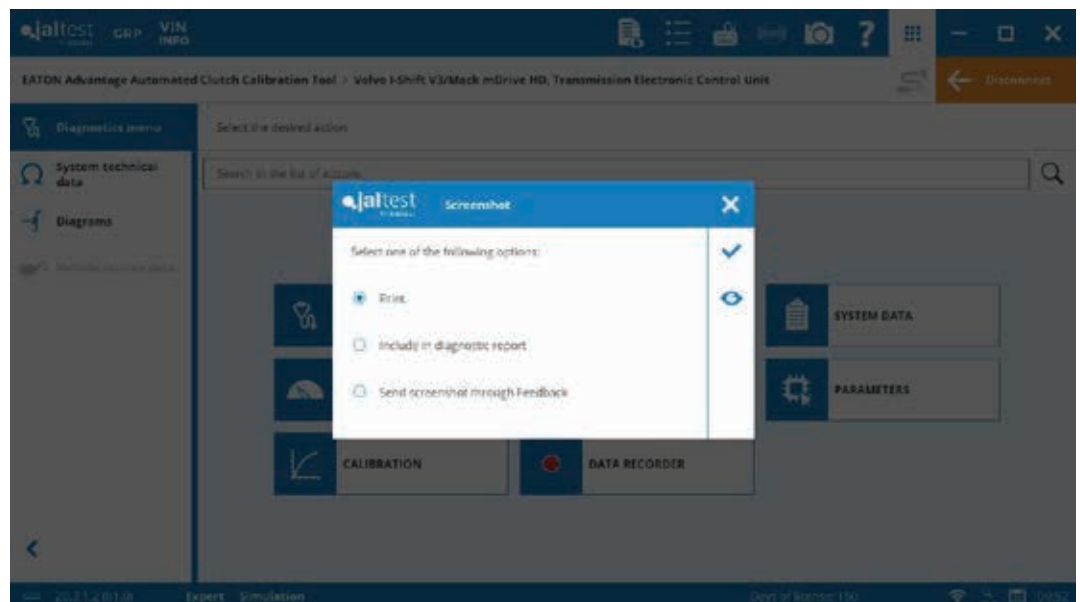
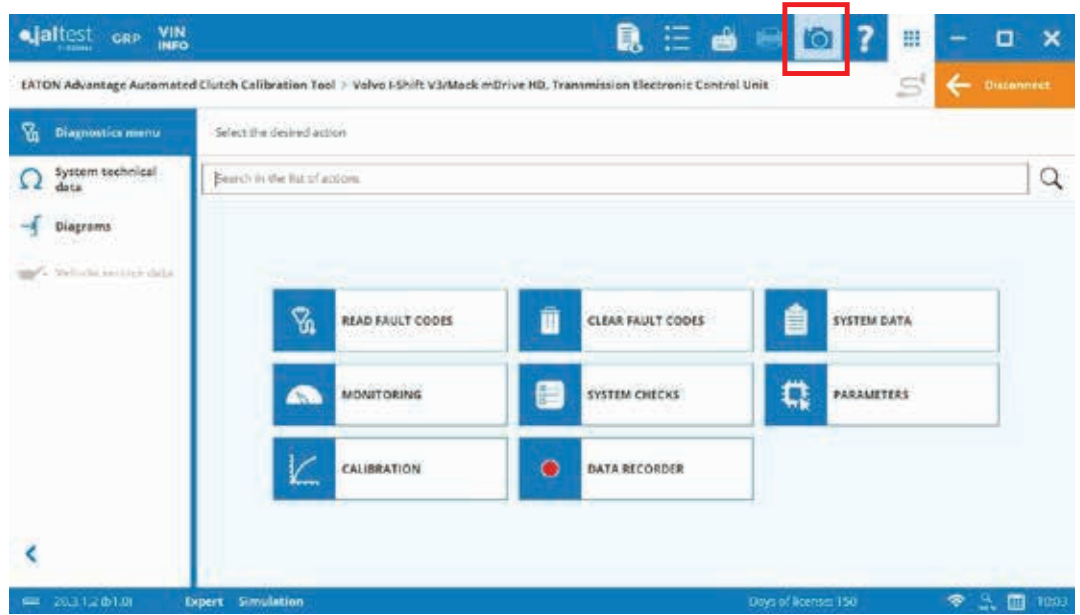
Instructions

Virtual Keyboard



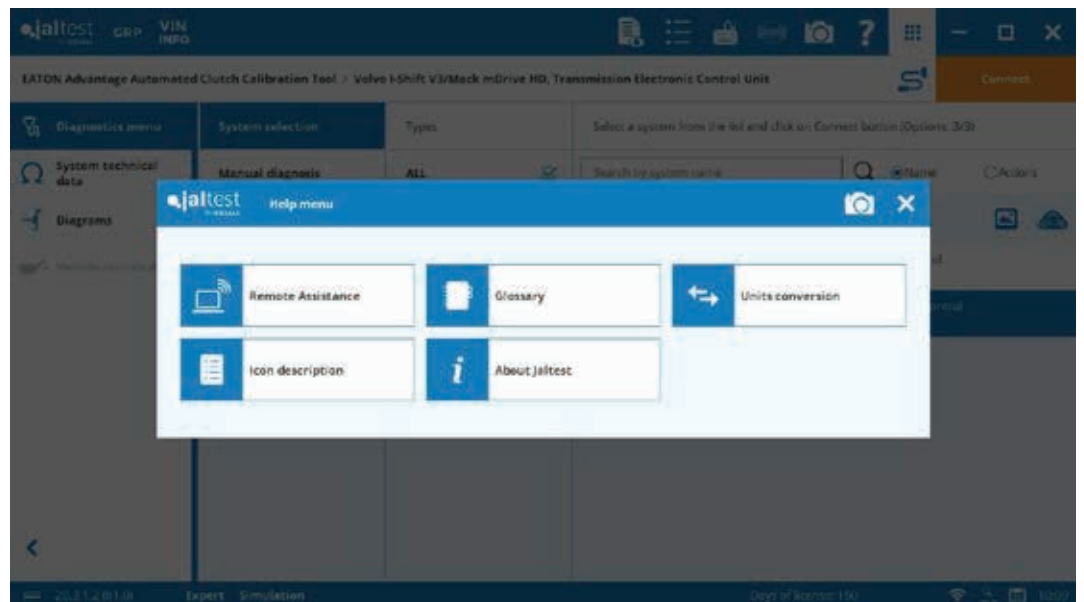
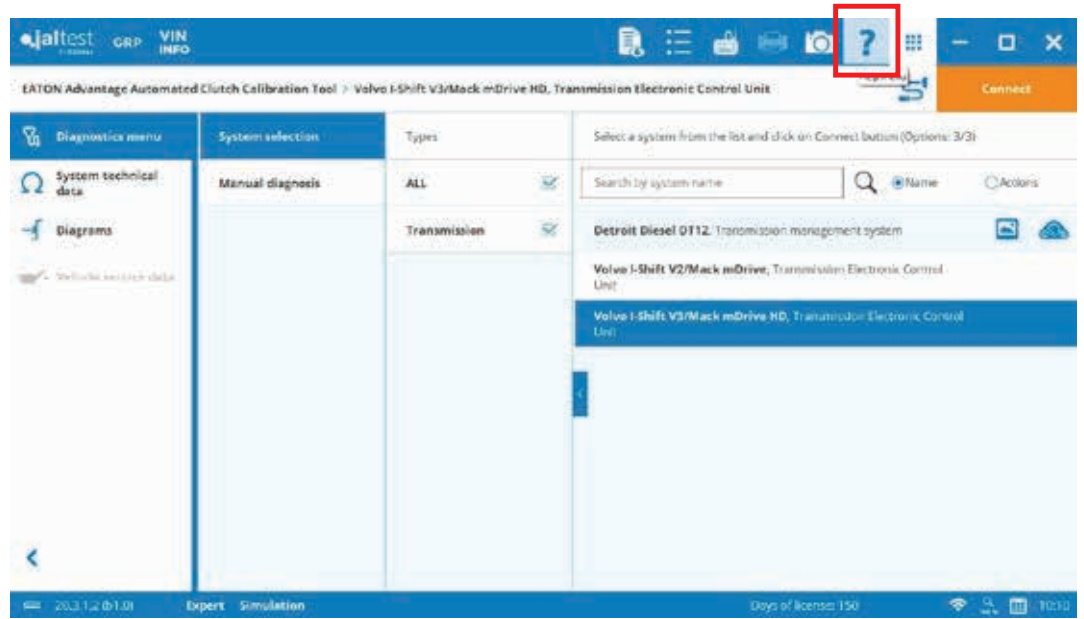
Instructions

Screenshot



Instructions

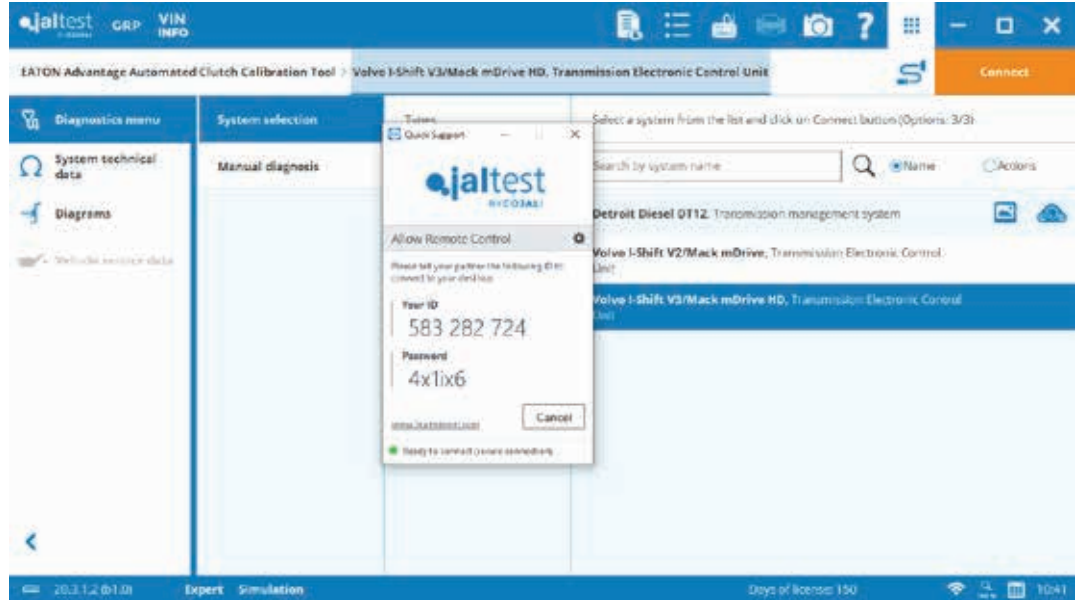
Help



Instructions

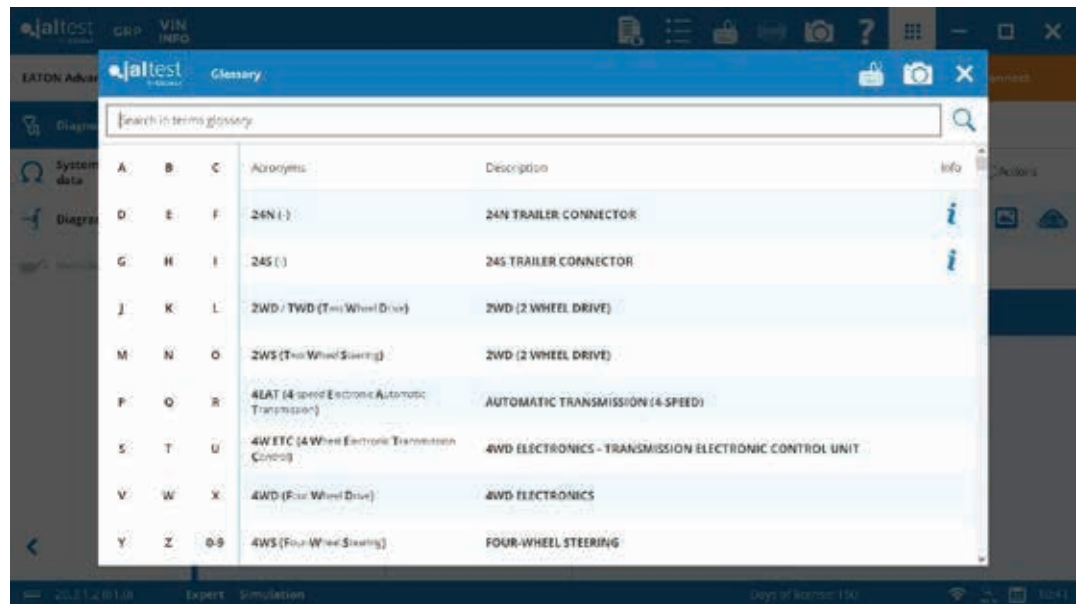
Help

Remote Assistance



Help

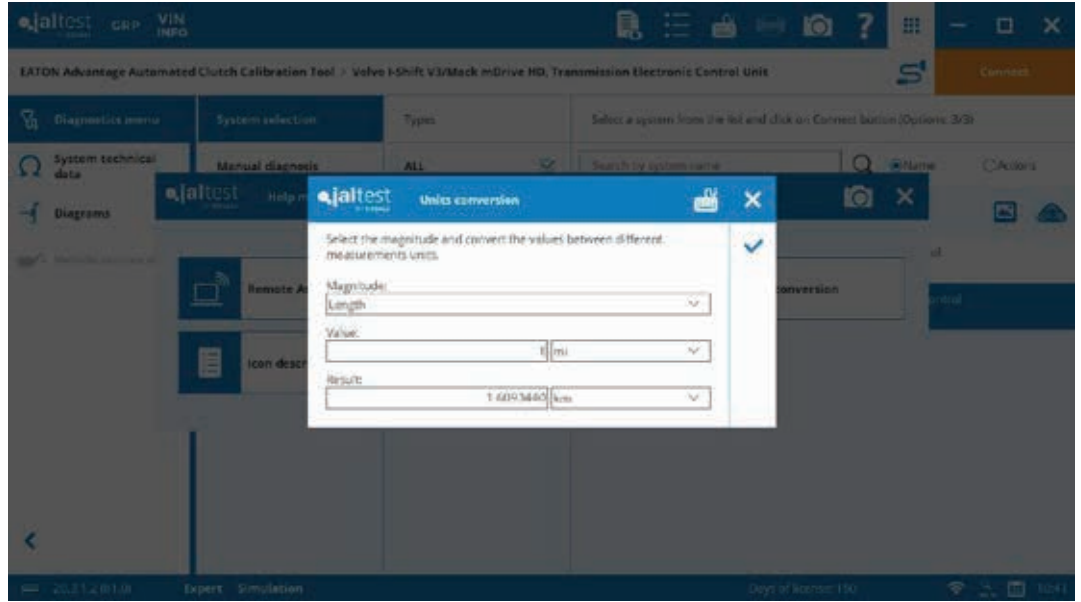
Glossary



Instructions

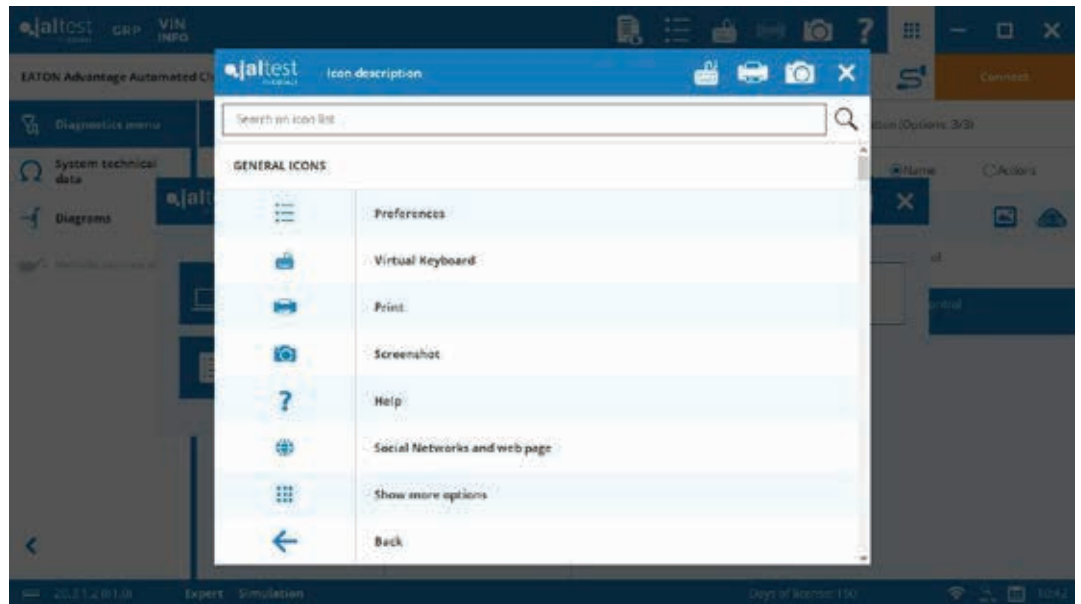
Help

Units Conversion



Help

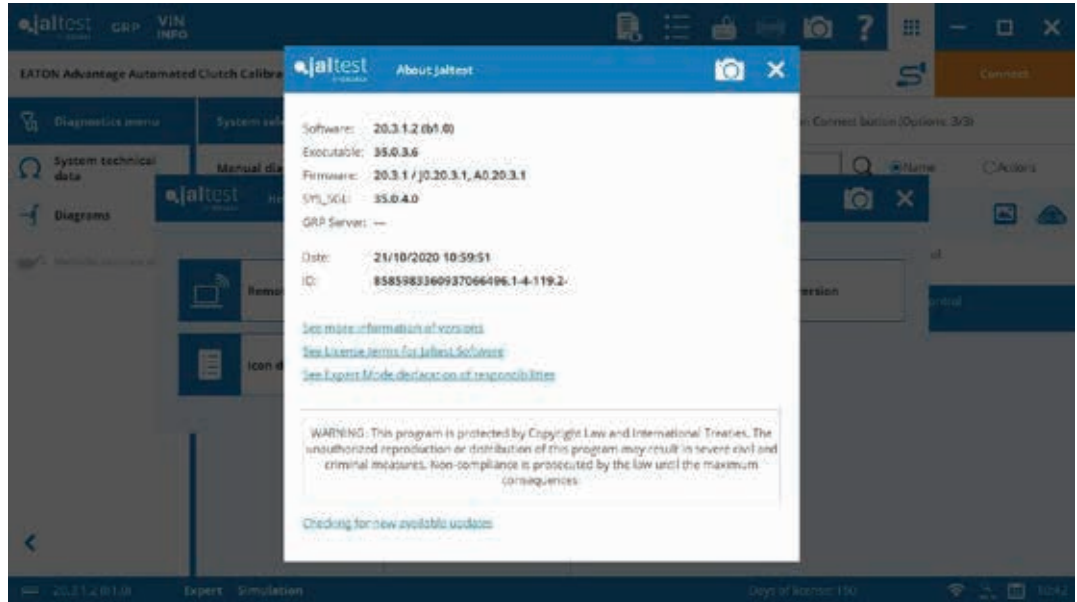
Icon Description



Instructions

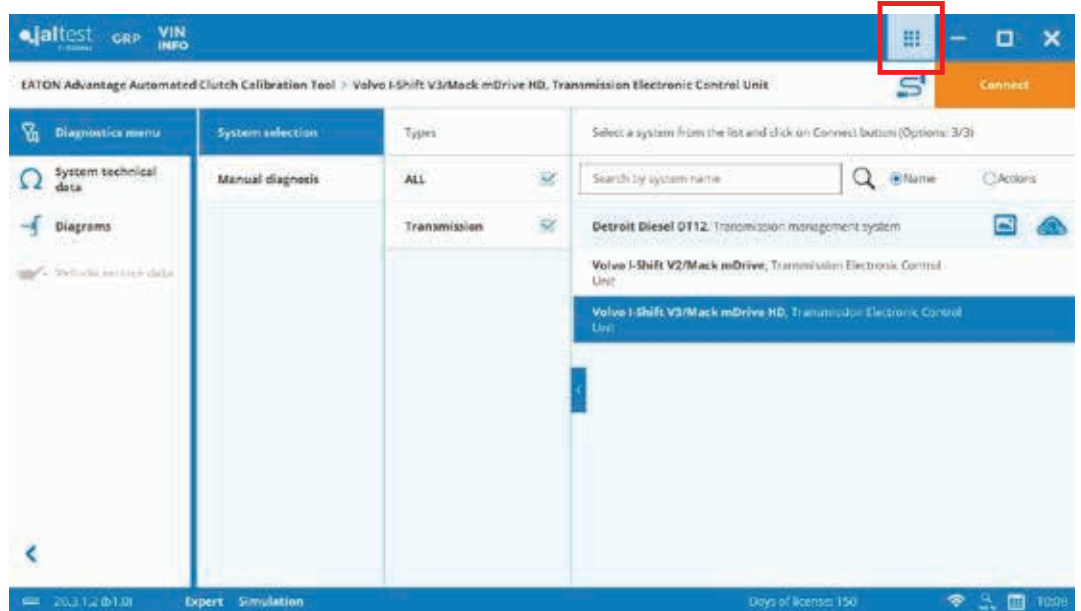
Help

About Jaltest



Instructions

Hide/Show Options



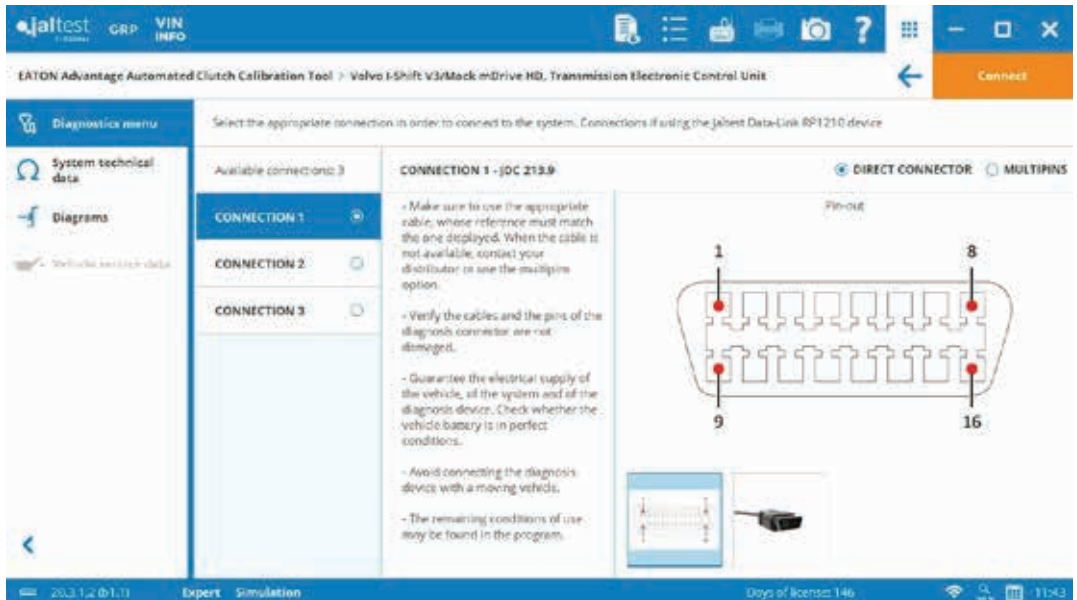
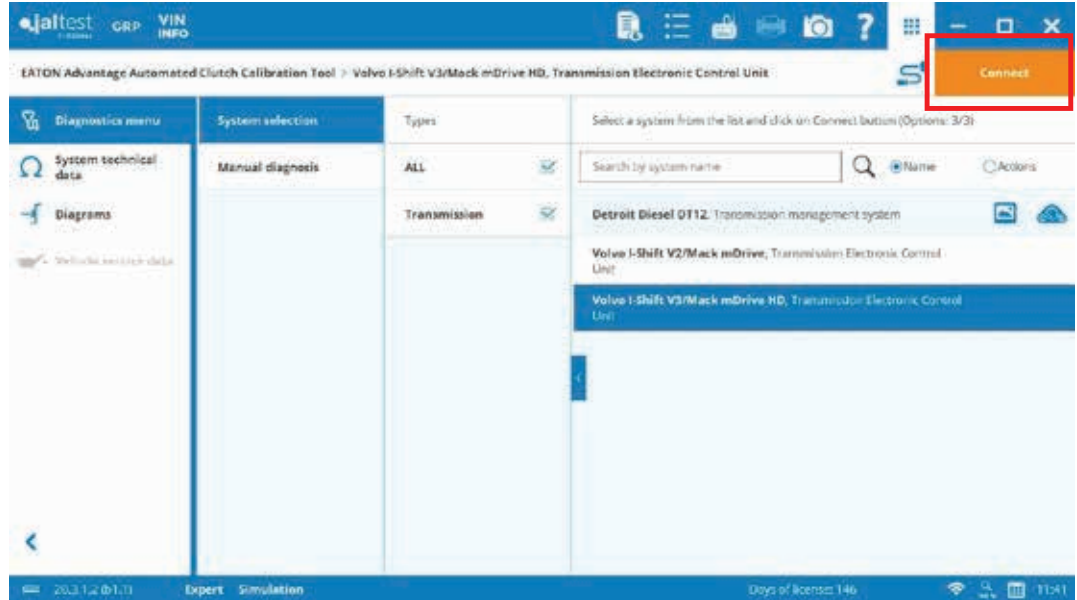
Printer



Instructions

Connecting to the Transmission Control Unit

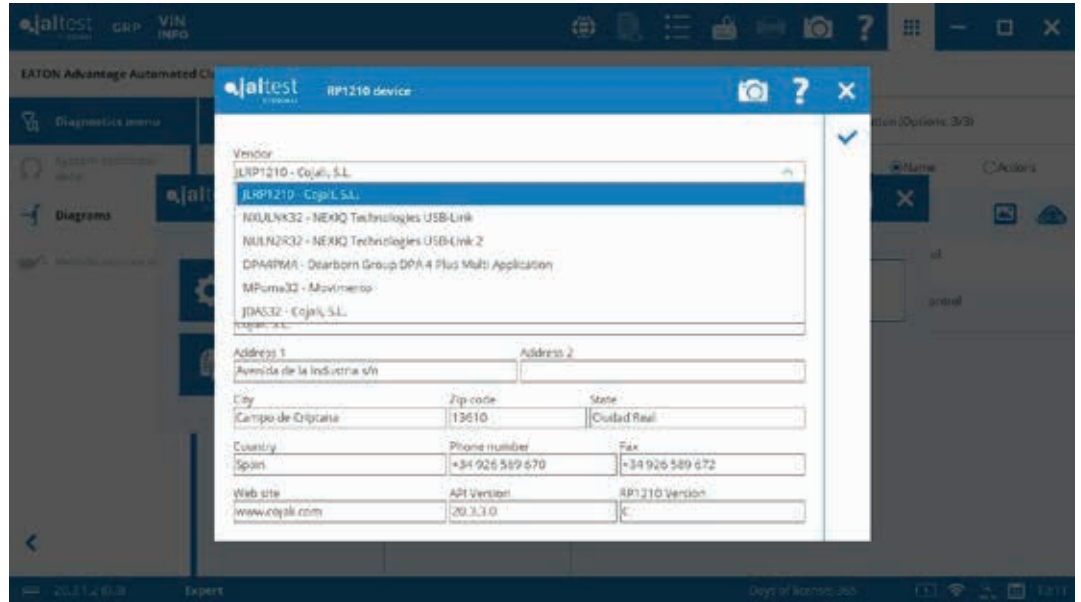
Select the system and a "Connect" button will appear. Click on the "Connect" button.



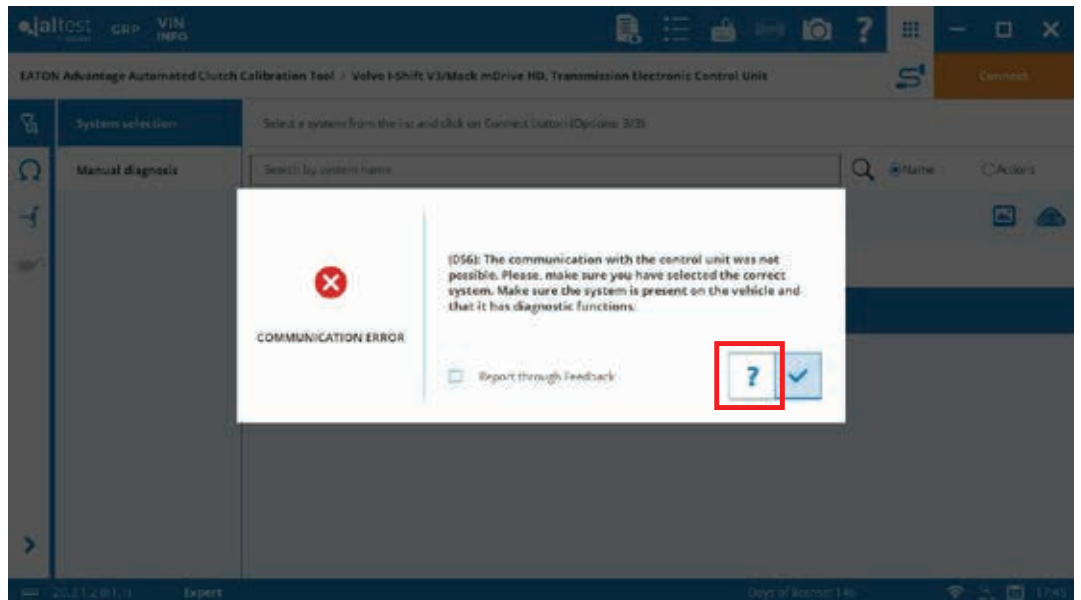
Instructions

Connecting to the Transmission Control Unit

During the first connection, the software will request to identify the RP1210 device used. This can be modified, as explained before, from the "Preferences" menu > "RP1210 device" section.



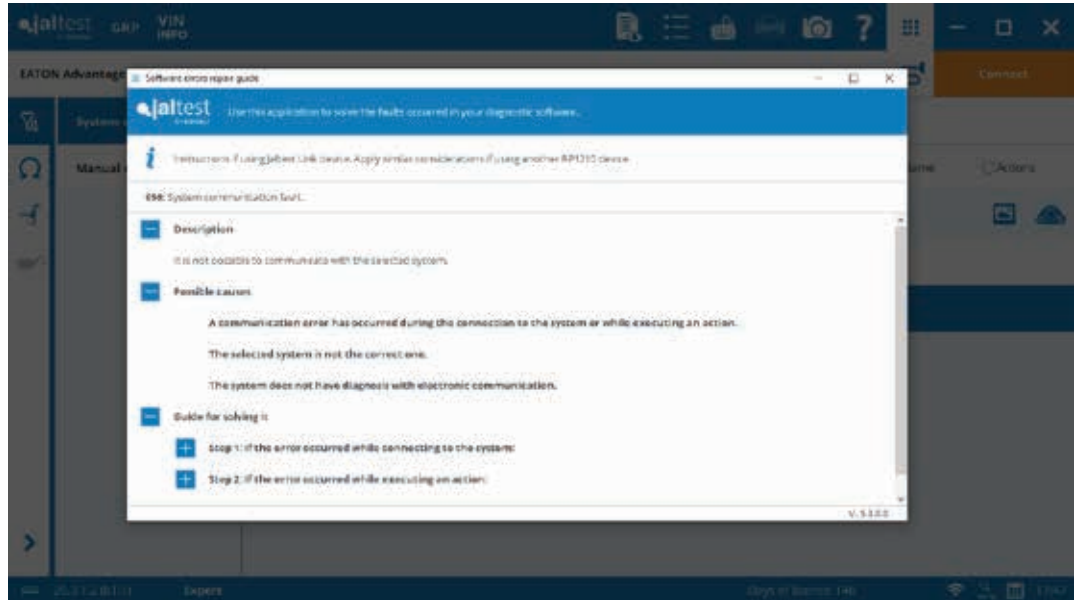
If the connection fails, or potential issues occur, troubleshooting guides will be provided.



Instructions

Connecting to the Transmission Control Unit

Troubleshooting guide.



Instructions

Main Menu

Read Fault Codes

Clear fault Codes

System Data (e.g., ECU data, SW and HW references)

Operation Data (e.g., Total and trip data)

Monitoring (Live data and System display)

Actuate Components

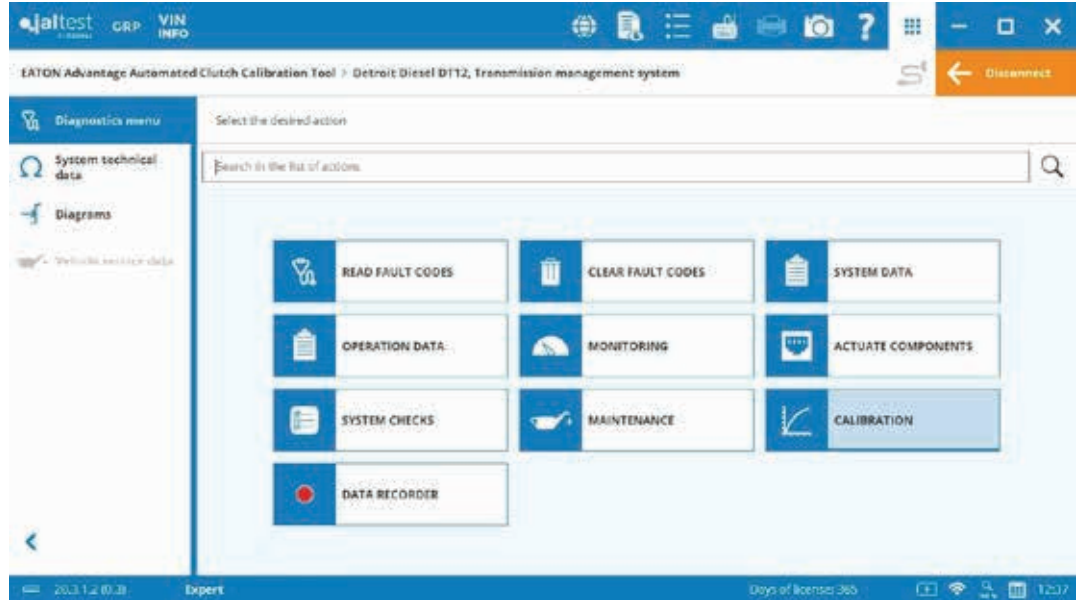
System Checks

Maintenance (components reset)

Calibration (e.g., clutch calibration)

Parameters (reprogram transmission ECU memory)

Data Recorder (perform a road test)



Main Menu

Read Fault Codes

1) Fault code status

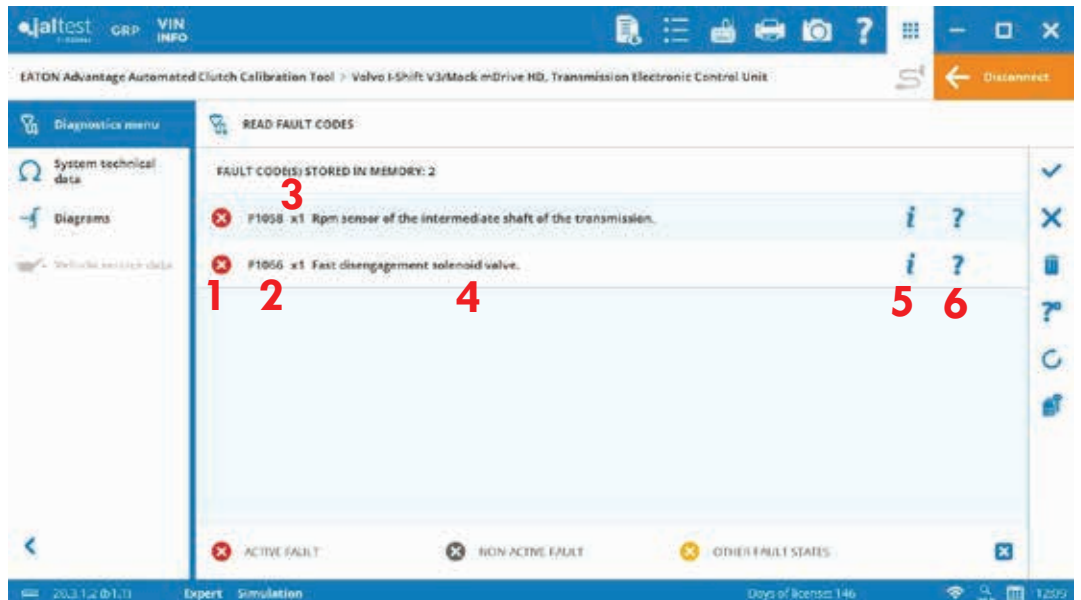
2) Fault code number

3) Number of occurrences

4) Description

5) Freeze frame data

6) Help and components related

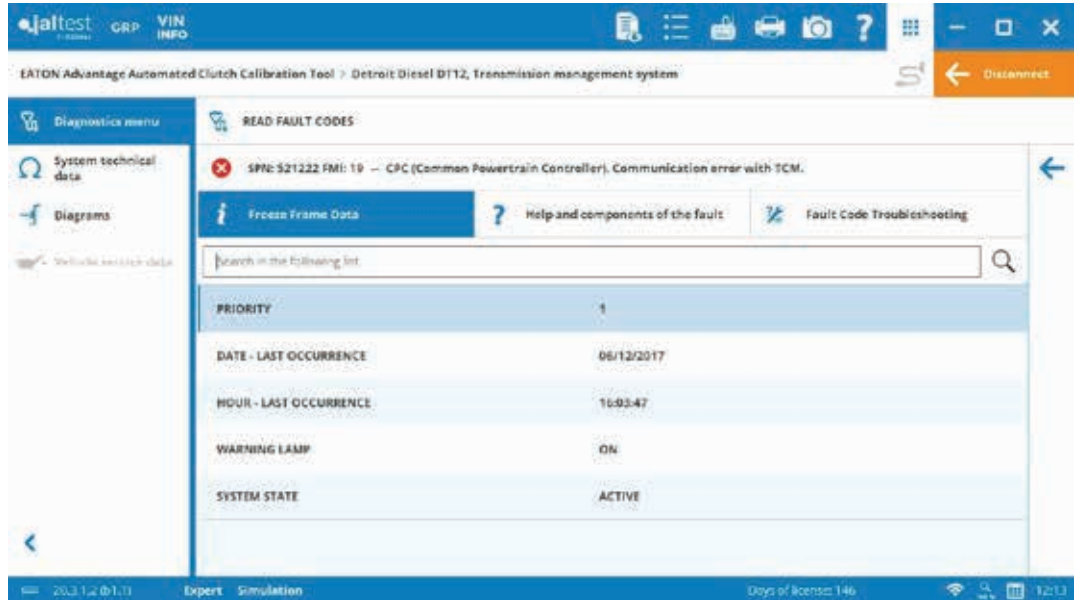


Instructions

Main Menu

Read Fault Codes

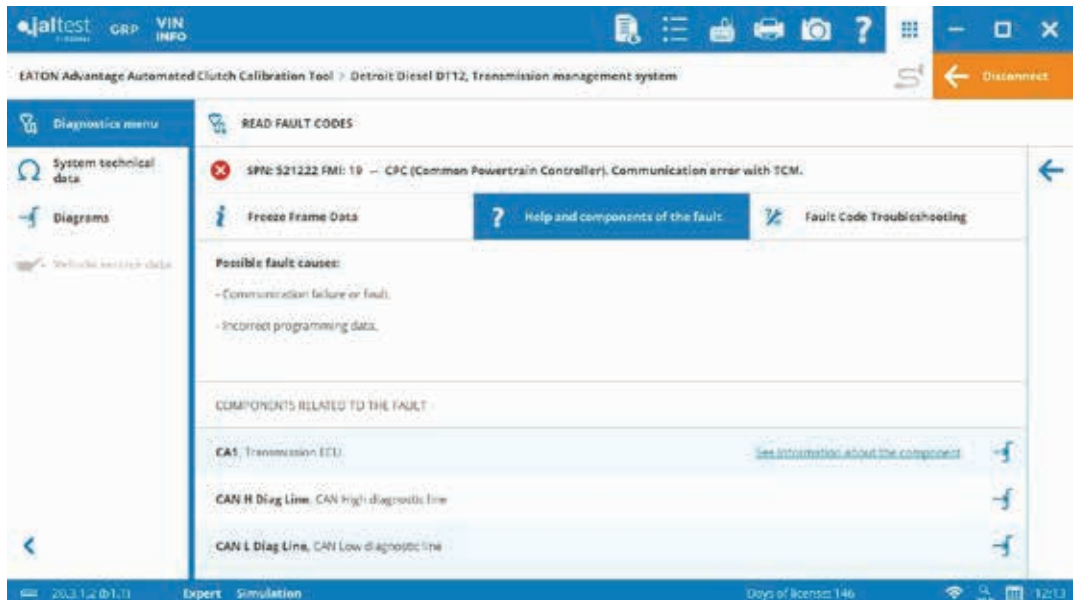
Freeze frame data detail



Main Menu

Read Fault Codes

Help and components related detail

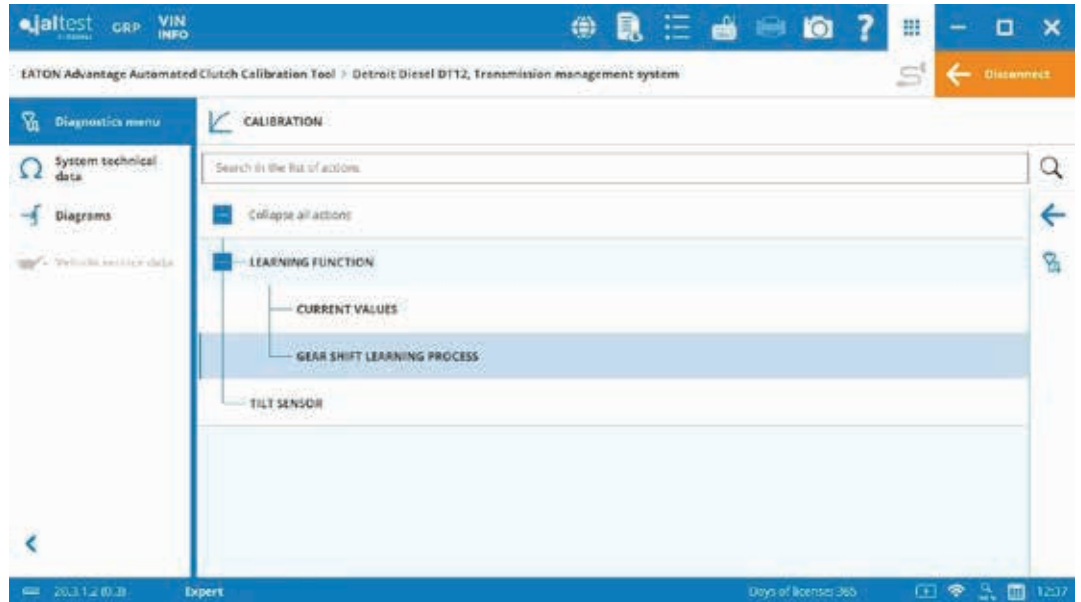


Instructions

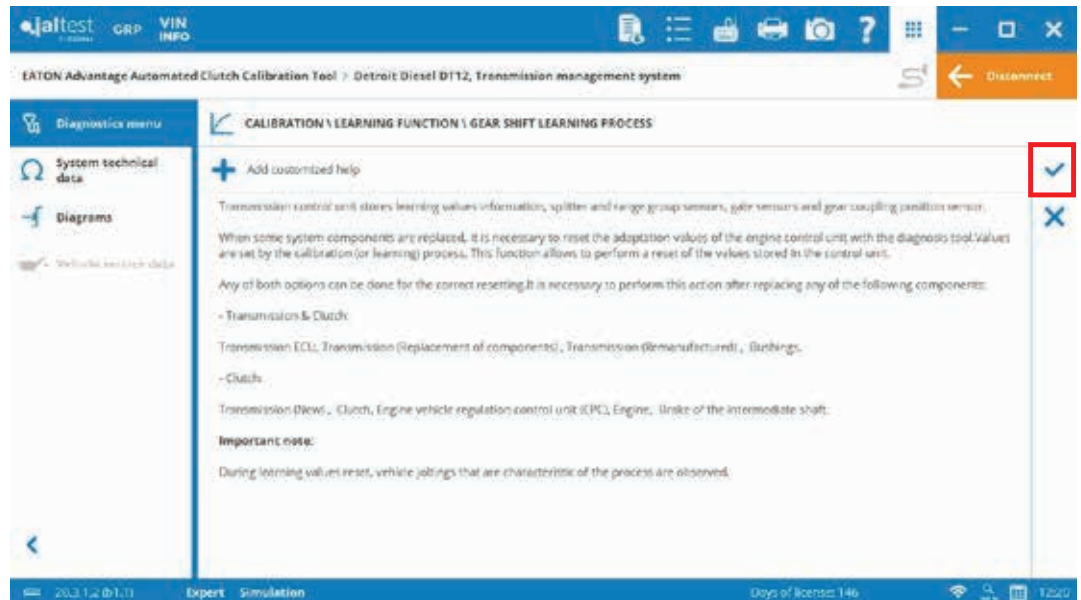
Main Menu

Calibration

Select the functionality.



Action Help will be displayed. Read carefully and click on the checkmark icon. During the rest of the steps of the functionality, it will be possible to go back to this information through the question mark. See third picture below.

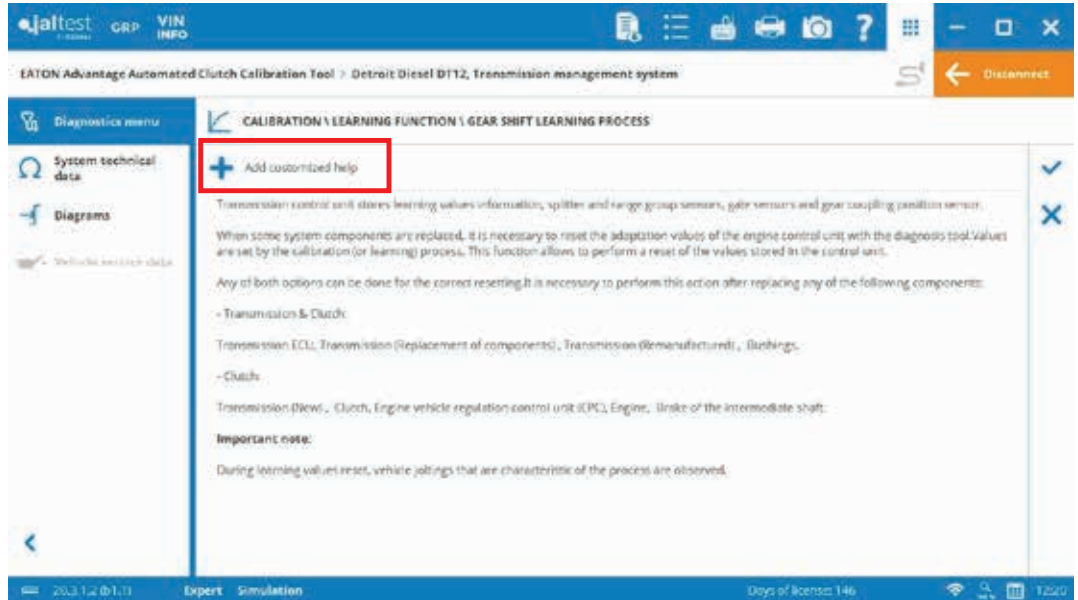


Instructions

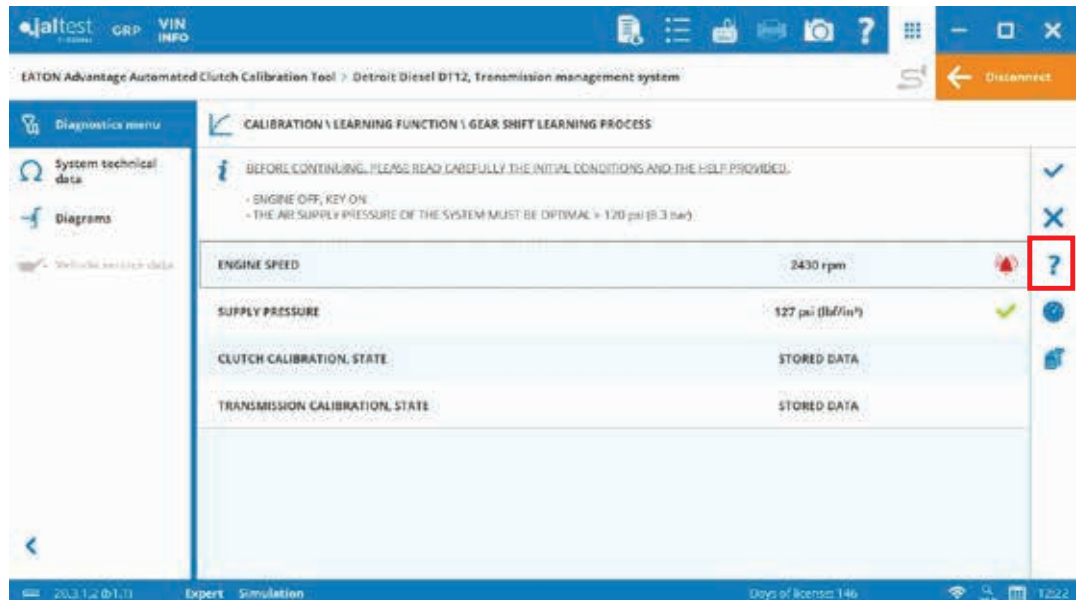
Main Menu

Callibration

It is possible to customize the action help using the next highlighted icon.



During the functionality, some initial conditions will need to be met in order to successfully carry out the procedure.

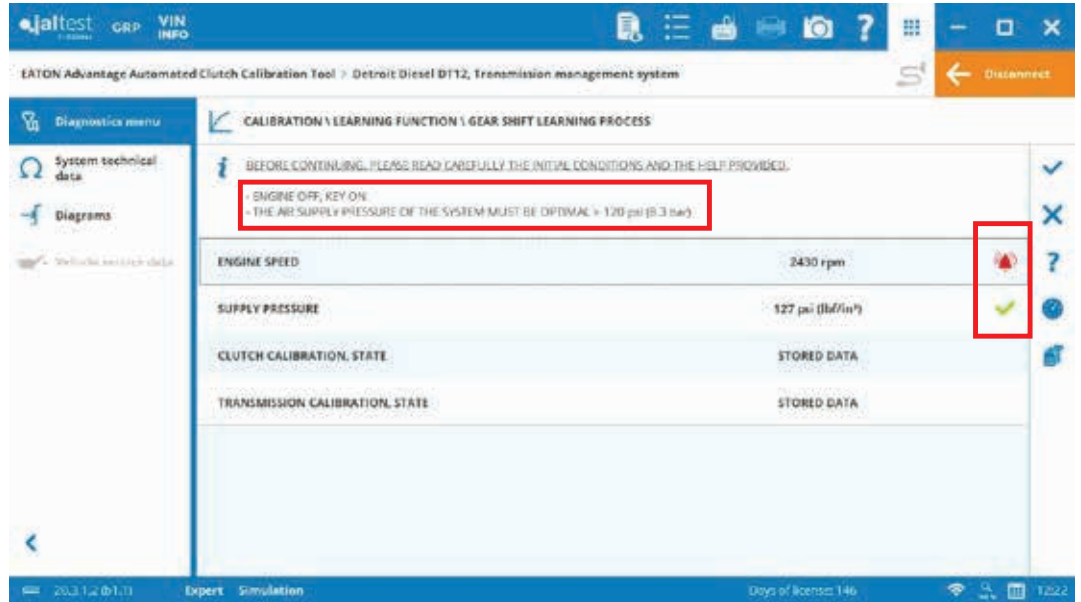


Instructions

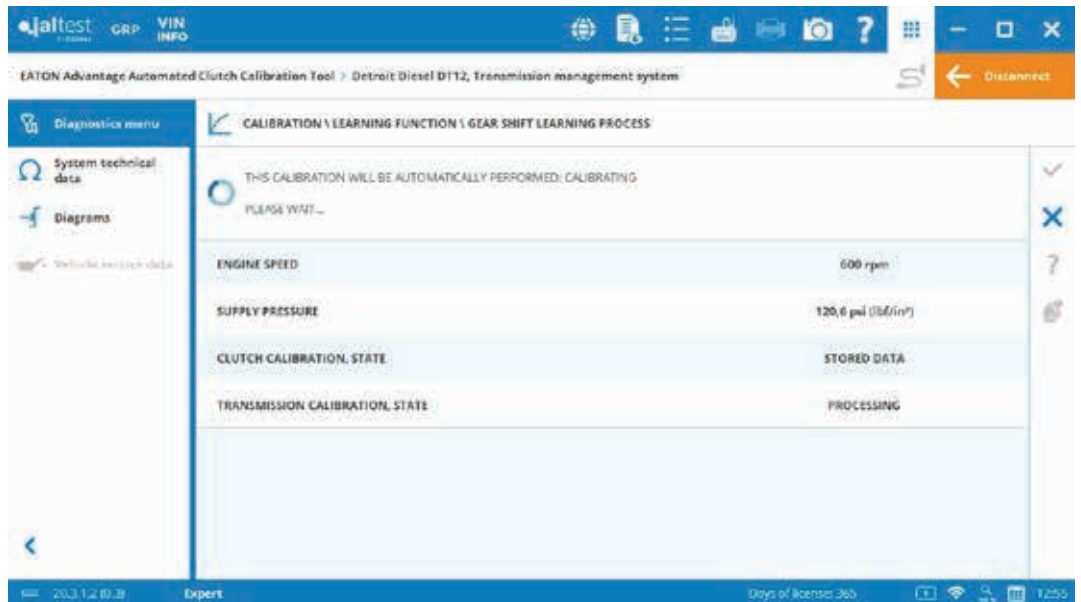
Main Menu

Calibration

Pay attention to the next icons to make sure those conditions are met. Click on the checkmark once these initial conditions are met.



The calibration process will start. Checkmark is disabled as this is an automatic step. It will finish automatically.

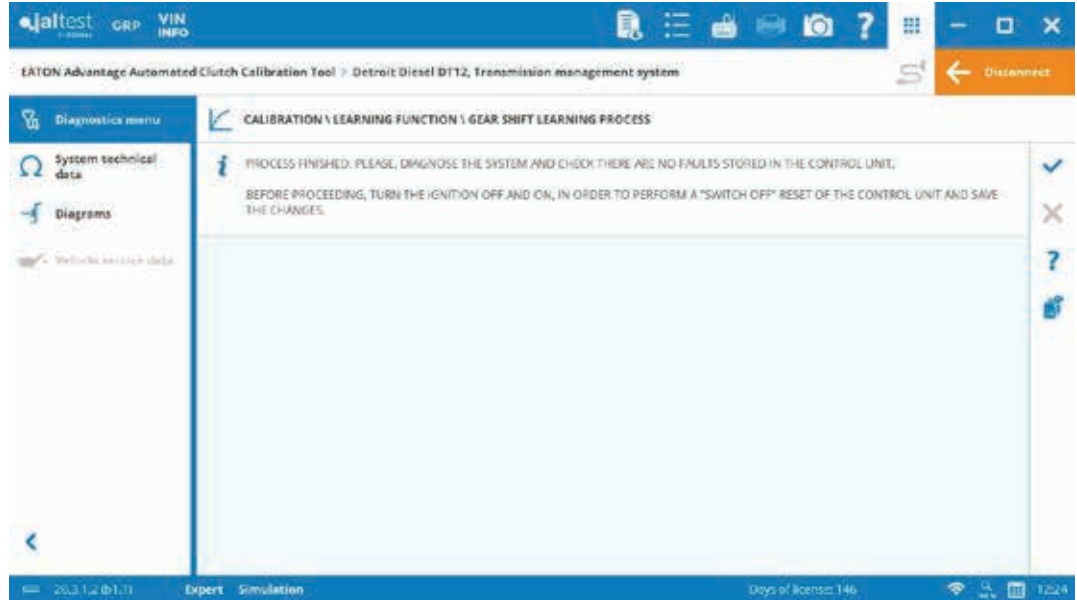


Instructions

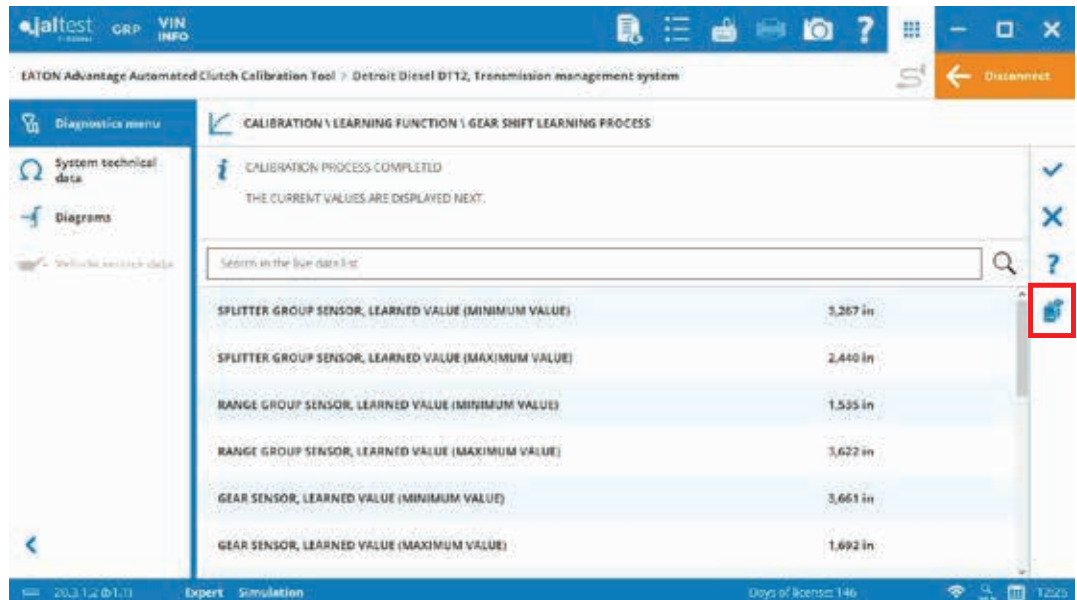
Main Menu

Calibration

The calibration has finished. After this step, the new values stored on the ECU will be shown.



See new values stored in the next picture. It is possible to add comments in the diagnostics report.

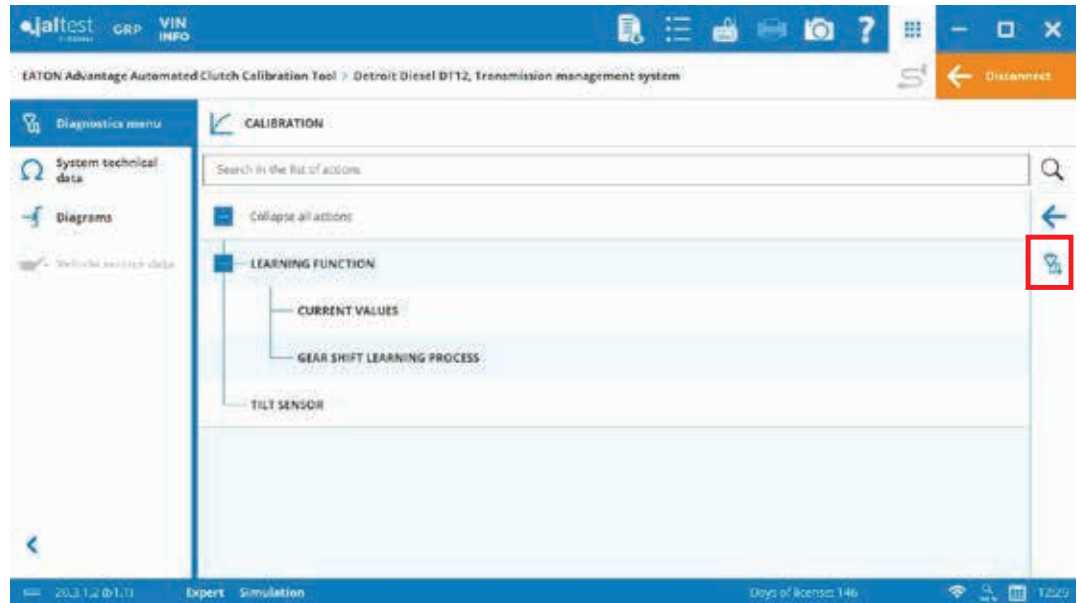


Instructions

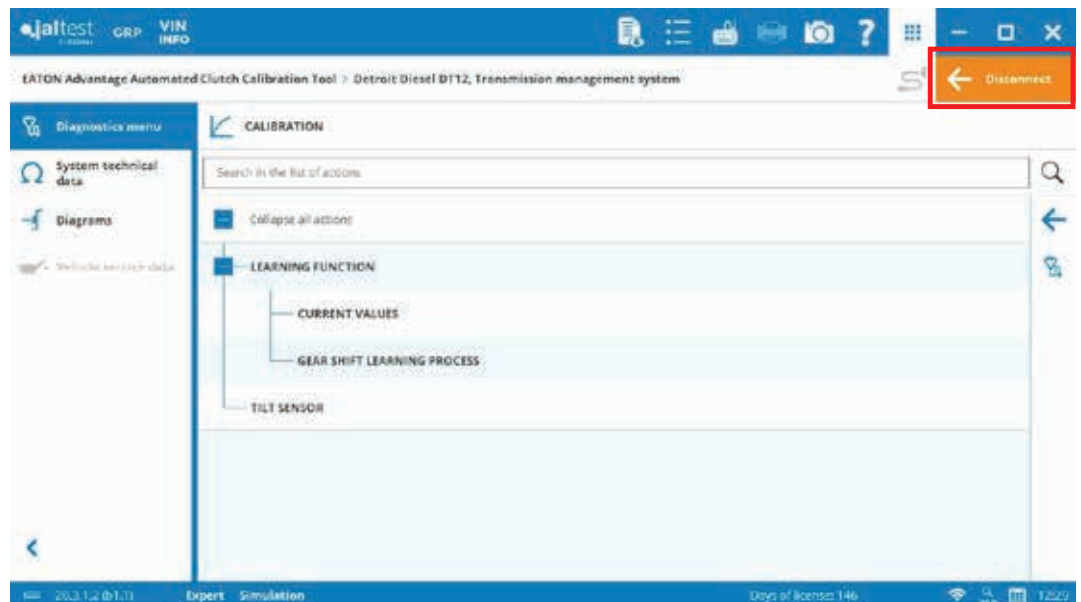
Main Menu

Calibration

Every time a functionality is completed, there is a shortcut to read fault codes.



Once the diagnostics session is completed, it is possible to select "Disconnect", to disconnect from the system.

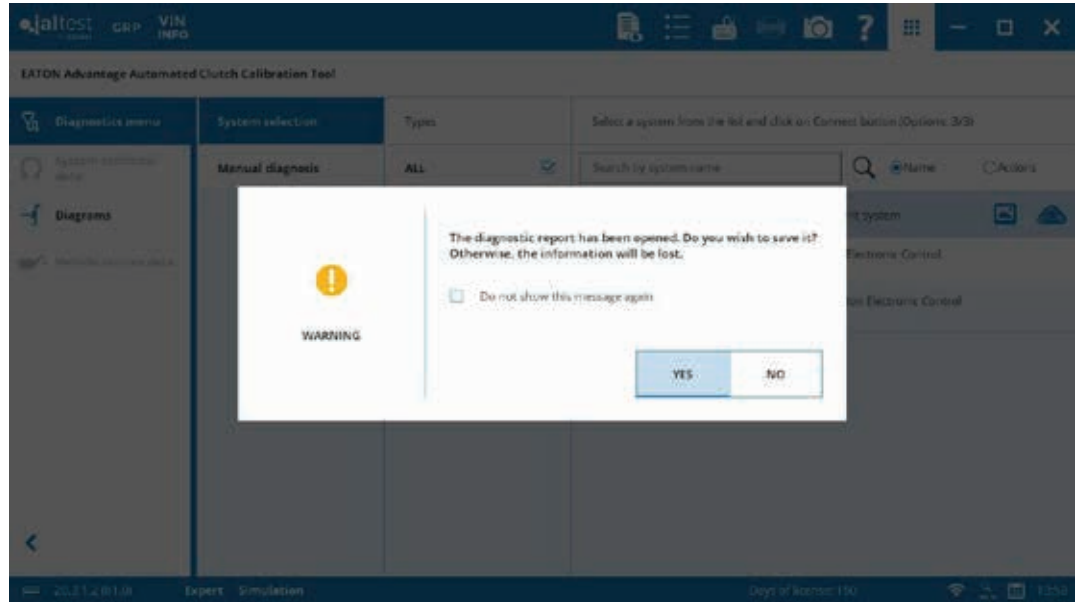


Instructions

Main Menu

Callibration

When closing the software or when selecting to preview the diagnostics report (at the top, icon beside the "Preferences" button), it is possible to generate a diagnostic report which can be stored in the GRP module. Also, the checkbox shown below can be enabled to save these preferences for future times.



Select "YES" and a diagnostics report preview will appear. The report can be saved and printed (in PDF format as well).

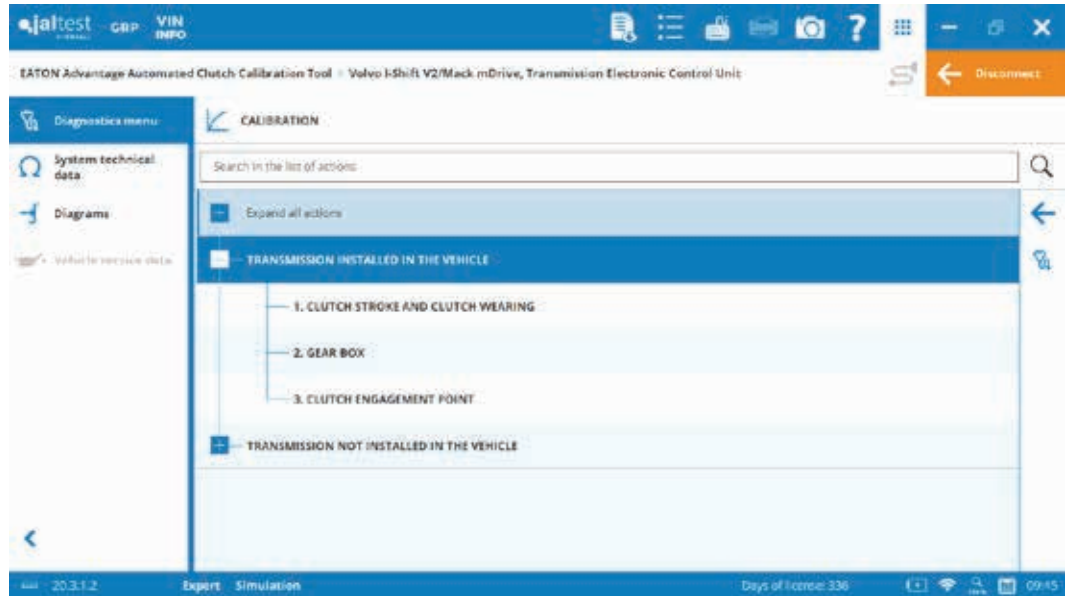


Clutch Calibration

This is the necessary selection when a new Eaton Advantage Automated Clutch tool is installed.

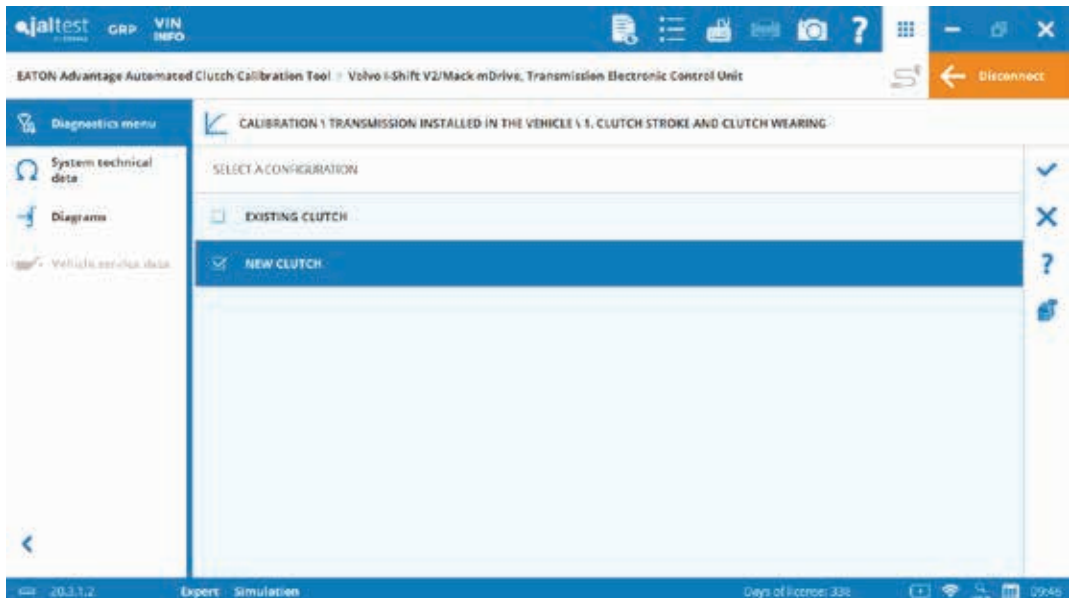
Volvo I-Shift V2 / Mack mDRIVE

Note: Clutch calibration with the transmission not installed in the vehicle is also supported.



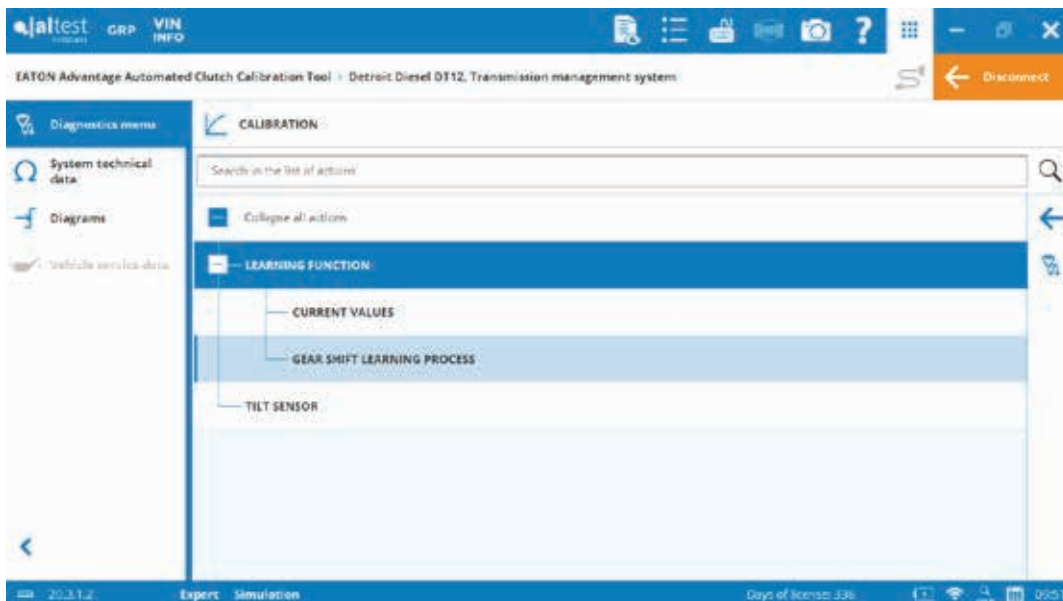
Volvo I-Shift V2 / Mack mDRIVE

Select "New clutch" option.



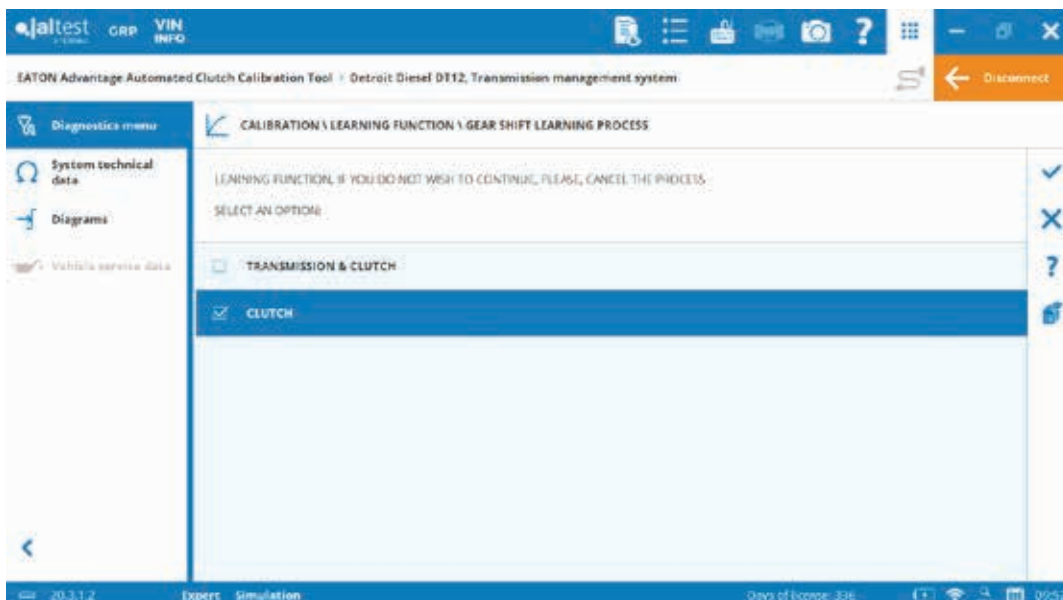
Clutch Calibration

Detroit DT12



Important.

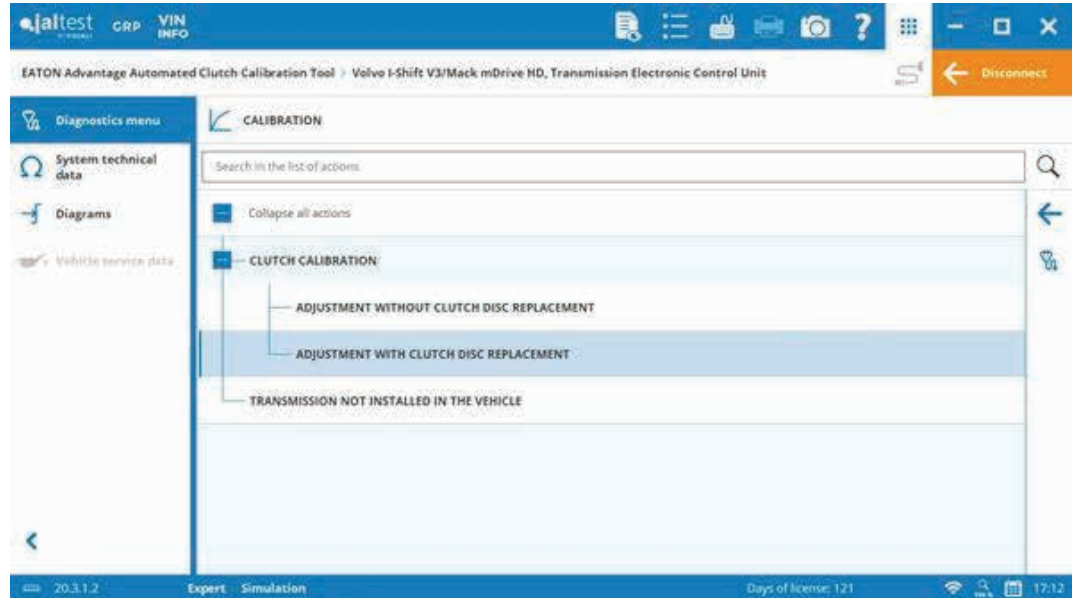
Select "Clutch" option. The other option is used in case TECU and/or other components would have been replaced.



Clutch Calibration

Volvo I-Shift V3 / Mack mDRIVE HD

Select the option highlighted. The first one would be in case you want to perform the adjustment without clutch disc replacement.





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SUPPORT

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www.eatonpartsonline.com.
In Mexico, call 001-800-826-4357.**

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Eaton
Vehicle Group
13100 E. Michigan Ave.
Galesburg, MI 49053 USA
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