KESS3

User Guide and Instruction manual

Instructions translated from the original Italian language

This User Guide has been expressly designed to illustrate functions and features of KESS3, the programmer for engine and automatic transmission control units through the vehicle diagnostic port or direct interface to the microcontroller.

This User Guide provides basic information on how to install, configure, and use the AlientechSuite system software and includes warnings and precautions for a safe and proper use of the tool.

We suggest you carefully read this User Guide before starting use KESS3 and its management software AlientechSuite, and to keep it always at hand.

Version	Release date	Release Notes	Ref. Page
1.00	31/03/2023	User Guide for KESS3 – AlientechSuite	All
1.01	14/04/2023	Updated “Technical Support Service” chapter	77

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Warnings

Please note: installation of AlientechSuite software and subsequent use of KESS3 imply your acceptance of the license agreement and terms of use contained in the software.

Important notices about the use of the KESS3 tool

To avoid electrical shock, do not open the case when the tool is connected. Refer any required servicing of product to Alientech srl only.

- The product and its accessories are suitable for professional use only.
- The product is intended only for the tuning of engine and/or automatic transmission management parameters of vehicles for competition purposes or uses in racing circuits not open to the public.
- The product allows access to the management parameters of engine and/or automatic transmission: writing a file with these parameters modified may render the vehicle out of compliance with the requirements and standards of the country where the vehicle is used with respect to power, speed, and emissions. It may also lead to a different or greater wear and tear of mechanical, electrical, and electronic components of the vehicle and could void the warranty provided by the manufacturer/seller of the vehicle.

  Alientech srl, its subsidiaries, and affiliates make no warranties of any kind about any extra wear or deterioration of the engine or other electrical, electronic, or mechanical parts of the vehicle or as to the compliance with standards and regulations required by the country where the vehicle is used.

- The tool and its accessories must only be used following a thorough reading of this User Guide and the Operating Manuals dedicated to the various protocols, available in the AlientechSuite software, and only in compliance with guidelines and suggestions.
- The product may enable modifying the functioning of the vehicle; therefore, the vehicle may have different reactions when compared to standard conditions specified by the manufacturer. The greatest attention must be paid when driving a vehicle which has its parameters modified.
- The use of KESS3 and its AlientechSuite software must always take place in safe conditions, i.e., with vehicle parked stationary and engine turned off. However, if an engine start is expressly required by AlientechSuite software, you must make sure the parking brake is properly engaged and the gear stick is in neutral position–or N (for automatic transmission.) If the vehicle is not equipped with a parking brake, make sure the vehicle cannot move and cause damage to people or things.

Important notices about the AlientechSuite software

- To fully use the features of KESS3, it is necessary to keep AlientechSuite software updated to the latest version.
- In case of transfer of KESS3 to third parties, before delivering the tool, please contact Alientech srl so that the new owner can register the tool in their name. In this way it is possible to inhibit access to your personal data and prevent their misuse.
- The Internet connection costs for the provision of the online services and the web resources, necessary for the operation of KESS3 and AlientechSuite, are at your expense.

Important notices about the contents in this Guide

- Alientech srl owns and administers some or all the rights to the images and other copyrighted content in this User Guide. Use of the images and other copyrighted content (including, but not limited to, copying, reproducing, modifying, translating, uploading on a network, displaying, transmitting, distributing, licensing, selling, and publishing) except as used herein, is prohibited to the extent allowed by law.
- This User Guide will be updated with each release of the AlientechSuite software if new features are introduced.
- This User Guide and the screen images representing AlientechSuite software and Alientech Dashboard are subject to change without notice.
- The screen images used throughout this Guide may be fictitious or may differ from actual screen images.

About trademarks

- AlientechSuite and KESS3 are either registered trademarks or trademarks of Alientech srl.
- Microsoft, Windows, and Edge are either registered trademarks or trademarks of Microsoft Corporation in the United States and / or other countries.
- All other trademarks are the properties of their respective owners.
- Alientech is not sponsored nor partnered with any automobile or ECU manufacturer: references to automakers or ECU manufacturers, vehicle or ECU models in AlientechSuite software or this User Guide are made solely because the vehicles or control units have been tested for use with KESS3 tool or are believed to be compatible with it.

CE – FCC Regulatory information

- The markings are located on the back side of the tool.
- The tool meets the essential requirements of Directives 2001/95/CE and 2019/882, and therefore carries the CE marking.
- The tool has been tested in accordance with harmonized standards CEI EN 55032, EN55035 and EN61000 series.
- The tool complies with ETSI EN 301 489-1 V2.2.0:2017, ETSI EN 300 328 V2.1.1:2016 and therefore carries the FCC marking.
- Compliance of the tool is guaranteed only when used with cables and accessories supplied by Alientech srl and according to what specified in the instructions for use.

Glossary

Before you begin, you should become familiar with some technical terms used in this User Guide.

Term	Explanation
Checksum	Operation needed to check the integrity of the data in the control unit. The checksum correction is performed automatically by KESS3 on each file during the writing procedure, to ensure the normal operation of the control unit. In Bench and Boot modes, checksum correction is performed only on the map zone. **In case the EEPROM memory is rewritten, KESS3 does not perform its checksum correction, in any of the available communication modes.**
ECU	*Engine control unit*. Allows management of engine parameters.
TCU	*Transmission Control Unit*. Allows management of automatic transmission parameters.
ACM	*Aftertreatment Control Module*. Helps reduce the number of pollutants released into the environment through diesel engine exhaust management.
UDM	*Urea Dosing Module*. Allows to manage the water-urea solution inside the tailpipe before the SCR catalyst in diesel engines.
EEPROM	*Electrically Erasable and Programmable Read Only Memory*. Reprogrammable memory. Writing, erasing, and rewriting take place electrically, even in-circuit.
Flash	Reprogrammable memory, with operation similar to the EEPROM but in Flash technology.
Micro	Electronic processing and control device integrated on a single integrated circuit chip (short for *Microcontroller.*)
DTC	*Diagnostic Trouble Codes*. Standard error codes detected by the vehicle diagnostics through the diagnostic port; useful, for example, to quickly identify and resolve vehicle malfunctions.
Original file	File containing data (including maps) for engine or automatic transmission management, stocked in the control unit.
Modified file	File created from the original file by making variations on the engine or automatic transmission management data; to be rewritten to the control unit.
Firmware	Program embedded in the tool that allows its working.
ID	Procedure to obtain the identification data of the control unit and save these data in a text file (.txt) to your computer (short for *Identification.*)
Backup	Safety copy of the data stored in the control unit, made to prevent total loss.
Restore	Procedure to write the backup file to the control unit, thus bringing it back to the state it was at the time the backup was performed.

Term	Explanation
Patch	Operation to enable the writing of modified files to the control unit in OBD mode. In some cases, it can be done directly in ODB mode, in others it is necessary to use Bench or Boot modes, removing the control unit from the vehicle.
Clone ECU	Function that allows copying data from a damaged control unit to a working one with the same model and hardware number. Function available in Bench and Boot modes (**a valid subscription is required for some ECU models.**)
Virtual Reading	OBD-mode procedure to obtain the original file of the vehicle, when the control unit does not support reading through the diagnostic port. **Requires a valid subscription.**
Operating Manuals	Manuals integrated within AlientechSuite software, that can be viewed when a communication protocol is selected. They provide guidance on cables and accessories to use, connection instructions, and warnings to follow to communicate correctly with the desired vehicle or control unit.
ECU programming	Tuning of the parameters stocked in an electronic control unit. It can be carried out in OBD, Bench or Boot mode, and consists in three operations: • Reading the original file stocked in the control unit. • Modification of the original file, using a tuning software. • Writing the modified file to the control unit.
OBD communication mode	Mode of communication with the control unit through the vehicle's diagnostic port (often called *OBDII port*), usually found inside the passenger compartment.
Bench communication mode	Mode of communication with the control unit by removing it from the vehicle and connecting directly to the external connector, without the need to open the control unit.
Boot communication mode	Mode of communication with the control unit by removing it from the vehicle, opening it and connecting to the programming pads on the circuit board inside.
OBDII diagnostic port	Standard hardware interface connector that provides access to the status of the various vehicle sub-systems to perform On-Board Diagnostics.
Communication protocol	Language of communication between the tool and the electronic control unit.
Master (tool)	To read and write files (not encoded) of engine or transmission control units.
Slave (tool)	To read encoded files from engine or transmission control units and write only encoded files received from their Master.
Master (single user)	• Reads the original file (not encoded) stocked in the control unit. • Modifies the file using a tuning software. • Writes the modified file (not encoded) to the control unit.

Term	Explanation
Master (user with one or more Slave users associated)	• Receives the encoded file from their Slave user. • Decodes the file through the services provided by Alientech srl. • Modifies the file using a tuning software. • Encodes the file through the services provided by Alientech srl. • Sends the encoded file to their Slave user.
Slave (user)	• Reads the encoded file of the control unit. • Sends the read file to their Master. • Receives the modified encoded file from their Master. • Writes the file to the control unit. **Note:** Even when the Slave user needs to rewrite the read file in ODB mode, they must ask their Master for the validation of the file.

Precautions

Before using the tool, carefully read the instructions provided in this User Guide and retain them for future reference.

Safety

This product has been designed with the highest concern for safety. However, any electrical device, if used improperly, has the potential for causing fire, electrical shock, or personal injury. To help ensure accident-free operation, follow these guidelines:

- Observe all warnings, precautions, and instructions provided.
- Regularly inspect the power supply and power cord for damage and dust build-up around the power plug, connectors, or electrical outlet.
- Stop using and immediately unplug the power supply from the electrical outlet or the power cord from the auxiliary power source, unplug the USB cable from the computer, and disconnect any other cable if the device operates abnormally, produces unusual sounds, smells or becomes too hot to touch.
- Do not use the product, cables, and accessories if not intact or visibly damaged.
- To avoid electrical shock, do not open the case when the tool is connected.
- Never disassemble the product, cables or accessories provided. Use KESS3, its cables and accessories by following the instructions provided in this User Guide and by complying with the connection instructions provided in the Operating Manuals available in the AlientechSuite software. No authorization for the analysis or modification of the product, its cables and accessories, or of its circuit configurations, or the analysis or modification of AlientechSuite software, is provided. Disassembling the product will void the warranty and may be dangerous.
- Refer any required servicing of product to Alientech srl only.
- Refer any technical support to Alientech srl only.
- The product, its cables and accessories are suitable for professional use only.
- The product, its cables and accessories are intended for expert users in controlled contexts (for example, car repair shops and mechatronics.)
- The product is intended only for the tuning of engine and/or automatic transmission management parameters of vehicles for competition purposes or uses in racing circuits not open to the public.
- The product is built with hypoallergenic material.
- The product can only be used with AlientechSuite software.
- The product is intended for use with environmental parameters between -10°C and +50°C (14°F and 122°F.)
- The product is not intended for outdoor use in adverse weather conditions such as rain, snow or high humidity.
- The product is compatible with all types of cars, motorbikes, trucks, tractors, and boats.
- The product is not intended for tuning the parameters of motorcycles with displacement less than 100 cc. (6 cu in.)

- The product is supplied with dedicated cable and power supply unit for connection to the power supply network, and cables and accessories for connection to the control unit or vehicle.
- The expected lifetime of the product is approx. ten years.

Use and handling

- Keep the product, cables and accessories out of the reach of small children and pets, as they may accidentally swallow small components (for ex., adapters or interchangeable connectors of connecting cables.)
- Do not use the tool near water.
- Use only original cables and accessories supplied by Alientech srl. Use of non-original cables and/or accessories may void the tool's warranty and preclude the possibility of receiving Technical Support.
- Do not use the product, cables, and accessories if not intact or visibly damaged.
- Do not expose the products, cables or accessories to high temperatures or humidity.
- Do not expose the product, cables or accessories to dust, smoke, or steam.
- Do not allow water or other liquids to get into the product, cable connectors or accessories.
- Do not drop the product, nor subject it to strong physical shock.
- Do not put heavy objects on the product, cables or accessories.
- Do not touch or insert foreign objects into the connectors of tool, cables or accessories.
- Do not disassemble the tool, cables, or accessories.
- The storage temperature of the product must be between -20°C and +70°C (-4°F and 158°F.)

Using the power supply and power cable

- Do not touch the plug of the power cable or power supply with wet hands.
- Do not touch the power cable or power supply, if they are connected to an electrical outlet or a power source, during an electrical storm.
- Use only power supply and power cable supplied by Alientech srl. Use of non-original power supply and/or power cable may void the tool's warranty and preclude the possibility of receiving Technical Support.
- Do not use the power supply or power cable if not intact or visibly damaged.
- Do not allow dust or foreign matter to build up around the product, power supply or power cable connectors. If there is dust or foreign matter on the connectors of product, power supply or power cable, wipe it off with a dry cloth before connecting. Dust or other matter on the connectors may cause fire or electrical shock.
- Unplug the power supply from the electrical outlet or the power cable from the auxiliary power source and disconnect the tool from your computer before cleaning.
- Protect the power supply and power cable from being walked on or compressed, particularly near plugs or at the product outlet.
- When disconnecting the power supply, hold it by the plug and pull it straight out from the electrical outlet. Never pull it by the cord and do not pull it out at an angle.

- Do not connect the power supply to a voltage transformer or inverter. Connecting the power supply to a voltage transformer while traveling abroad or an inverter for use in an automobile may cause heat to build up in the power supply, which may cause burns or operating problems.
- A kit of four standard plugs is provided inside the package for connecting the power supply to certain types of international electrical outlets: EU, UK, US, AU. If the plugs are not suitable for the sockets in the country where the product is used, plugs complying with the CE directive must be used.

Alientech srl, its subsidiaries and affiliates do not accept any liability for damages, costs or expenses resulting from the use of plugs, power cord and/or power supply not supplied by Alientech srl or that do not comply with the local directive.

WEEE Directive

The product is marked in conformity with European Directive 2012/19/UE, Waste Electrical and Electronic Equipment (WEEE.) By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health. Recycling of products helps to conserve natural resources and protect the environment. This symbol on the product or its packaging indicates that the product must not be disposed of with general household waste in the European territory but must be taken to an appropriate collection center for the recycling of electrical and electronic equipment. Disposal must be carried out in accordance with local regulations on waste disposal. For further information on the treatment, recovery, and recycling of this product, contact a competent local authority, the collection service for household waste, Alientech srl or your local dealer. Illegal disposal of the product involves the application of administrative penalties provided for by current legislation.

Suitcase and packaging material must be delivered to the garbage collection as solid waste, following the local legislation on waste disposal and differentiation.

Risks connected to Reading or Writing Data

When reading or programming data with KESS3, if the communication between the tool and electronic control unit were to be interrupted, serious problems may occur, which may lead to the complete failure of the control unit with consequent need for its replacement.

Therefore, during these operations:

- **DO NOT** disconnect cables and/or accessories required for communication between tool and control unit or tool and vehicle.
- **DO NOT** unplug the USB cable between tool and computer.
- **DO NOT** turn off the computer.
- **DO NOT** shut down AlientechSuite software.
- **DO NOT** remove the power source from the tool and/or the control unit.
- **DO NOT** use the tool in places exposed to static electricity or strong electrical interference.

If, for any reason, a damage to the control unit or a data loss or corruption (even partial) occurs and a recovery is not possible, Alientech srl, its subsidiaries and affiliates cannot be held liable for any damages, costs or expenses arising from this damage, loss or corruption.

Cleaning

For safety reasons, unplug the power supply from the electrical outlet, or the power cord from the auxiliary power source, and disconnect the tool from the computer before cleaning.

- **Cleaning the exterior surface:** Wipe gently with a dry anti-static cloth. Do not use solvents, soaps, detergents, or other chemicals to clear the exterior surface of KESS3.
- **Cleaning the connectors:** Do not use the product, its cables, and accessories if the connectors, power supply or power cable are not clean. Remove the dirt with a dry cloth. Do not use pointed or sharp tools for cleaning and removing any objects or dirt from tool, cable, and accessory connectors.

Package contents

The basic kit supplied with KESS3 includes:

□ KESS3 tool, in Master or Slave version

Figure 1: KESS3 tool

□ 1 Power supply 1400K3ALIM with interchangeable international plugs

□ 1 External battery power supply cable 144300TALI

□ 1 USB cable 081600USB2

□ 1 OBD cable 144300KOBD

□ 1 Rainbow ribbon cable IDC26-10 144300T104

□ 1 Rainbow ribbon cable IDC26-16 144300T105

□ 1 Rainbow ribbon cable IDC26-26 144300T106

□ 1 Multiwire cable 144300KBNC

□ 1 Extensions 144300KTER for multiwire cable 144300KBNC

□ 1 Suitcase

Figure 2: KESS3 suitcase complete with tool and accessories

Always keep the original packaging. In case of repair, the tool must be returned in its case and complete with all its cables and accessories.

Parts name and functions

Top side of the tool

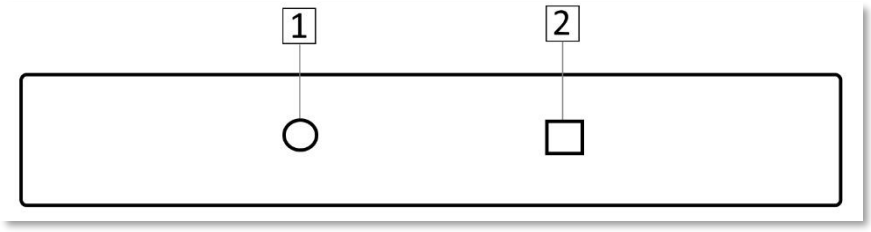


Figure 3: Top side of the tool

1 Supply connector

For connecting the tool to the power supply 1400SWALIM or external battery power supply cable 144300KTALI supplied with the tool.

2 USB Port

For connecting the tool to the computer.

Bottom side of the tool

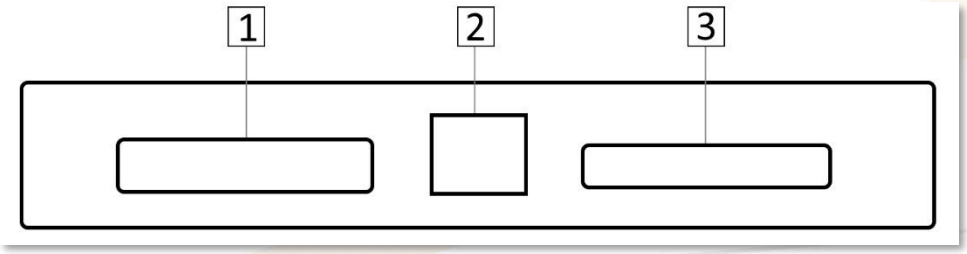


Figure 4: Bottom side of the tool

1 IDC 26 connector

For connecting the tool accessories. Refer to the Operating Manuals dedicated to the various protocols, available in the AlientechSuite software, to find out which accessory to connect to the control unit or vehicle you wish to work on.

2 Tyco 12-way connector

For connecting the multiwire cable 144300KBNC supplied with the tool.

3 DB25 connector

For connecting the tool accessories. Refer to the Operating Manuals dedicated to the various protocols, available in the AlientechSuite software, to find out which accessory to connect to the control unit or vehicle you wish to work on.

Front side of the tool

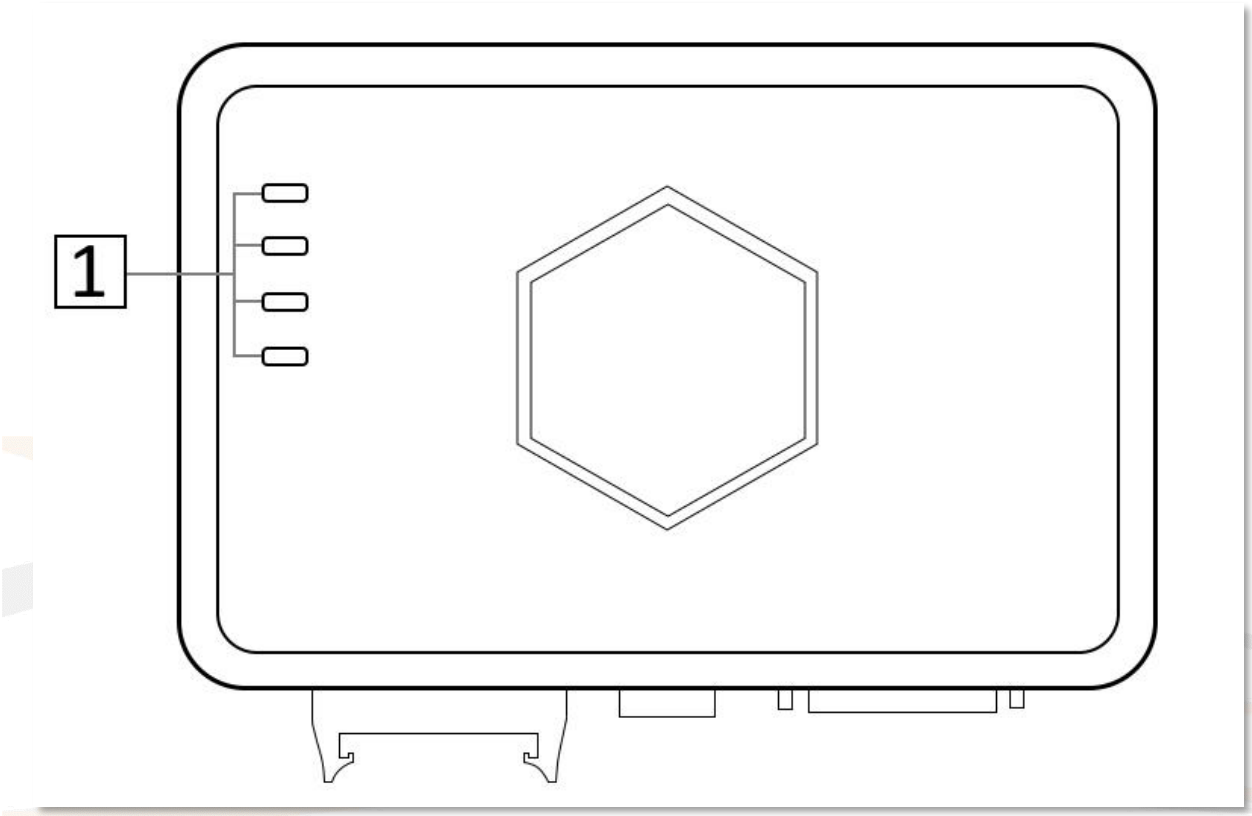


Figure 5: Front side of the tool

1 Status LED

The **blue** LED (ECU ON) lights up when the tool supplies V-ECU power to the control unit.
The **orange** LED (KEY ON) lights up when the tool supplies V-KEY power to the control unit.
The **red** LED (POWER) lights up then the tool is connected to a power source.
The **green** LED (DATA) lights up when the tool is connected to the computer through the USB cable and AlientechSuite software is running, and blinks during communication with the control unit.

Basic operations

Downloading and installing the AlientechSuite software

- The product, its cables and accessories are suitable for professional use only.
- The product, its cables and accessories are intended for expert users in controlled contexts (for example, car repair shops and mechatronics.)

You can download the AlientechSuite software:

- From the Download Area of the Alientech Dashboard, at https://dashboard.alientech.to/downloads, upon registration.
- From the Download page of Alientech srl institutional website, at https://www.alientech-tools.com/download/, upon filling out the request form.

To download the AlientechSuite software from the Download Area of the Alientech Dashboard, just click the *AlientechSuite_Setup* link: the portal will suggest saving the file to your computer.

To download the AlientechSuite software from Alientech srl institutional website, just fill out the request form: you will find the link from which to download the software on the thank you page.

Do not connect KESS3 to the computer when installing AlientechSuite. The installation and configuration of the tool will be made later.

1. Double-click the *AlientechSuite_Setup.exe* file to launch the AlientechSuite software installation wizard.
2. Select the desired language for the installation wizard and follow the on-screen instructions provided by the wizard. During AlientechSuite software installation, KESS3 drivers are also installed.
3. When the installation is complete, you will be prompted to start the software.

When installing AlientechSuite, you may be required to install additional software, such as *Microsoft Visual C++ 2005 Runtime Libraries.* If this request appears, follow the on-screen instructions to install any additional software. **If you do not install the additional software proposed, the tool or AlientechSuite software may not work properly**.

Installing KESS3

DO NOT use USB hub to connect the tool: connect the supplied USB cable directly to the USB port of your computer.

1. When AlientechSuite software installation is complete, launch AlientechSuite and then connect KESS3 to your computer using the supplied USB cable.
2. Wait until a message appears confirming that your operating system has correctly recognized the new device. Usually, this message is displayed in the lower right part of the screen.

While AlientechSuite software searches for and installs any tool updates in the background, you can already browse the vehicle list and select a vehicle.

> When updating KESS3 tool, it may be necessary to use the 1400K3ALIM power supply for the update to be successful: if the power supply needs to be connected, AlientechSuite will display a warning.

Tool registration

The first time you connect KESS3 to AlientechSuite software, you will be required to associate the tool with your ALIEN_id in Alientech Dashboard, to activate the tool and the online services provided by Alientech srl.

To associate the tool with your ALIEN_id:

1. Click the red button <**Register tool**>.
2. Click “OK” in the pop-up message that will appear on the screen.
3. If you already have an ALIEN_id, just log-in to the Alientech Dashboard with your credentials (e-mail and password) to associate your tool.
4. If you do not have an ALIEN_id, you need to make a new registration.

Figure 6: Unregistered tool

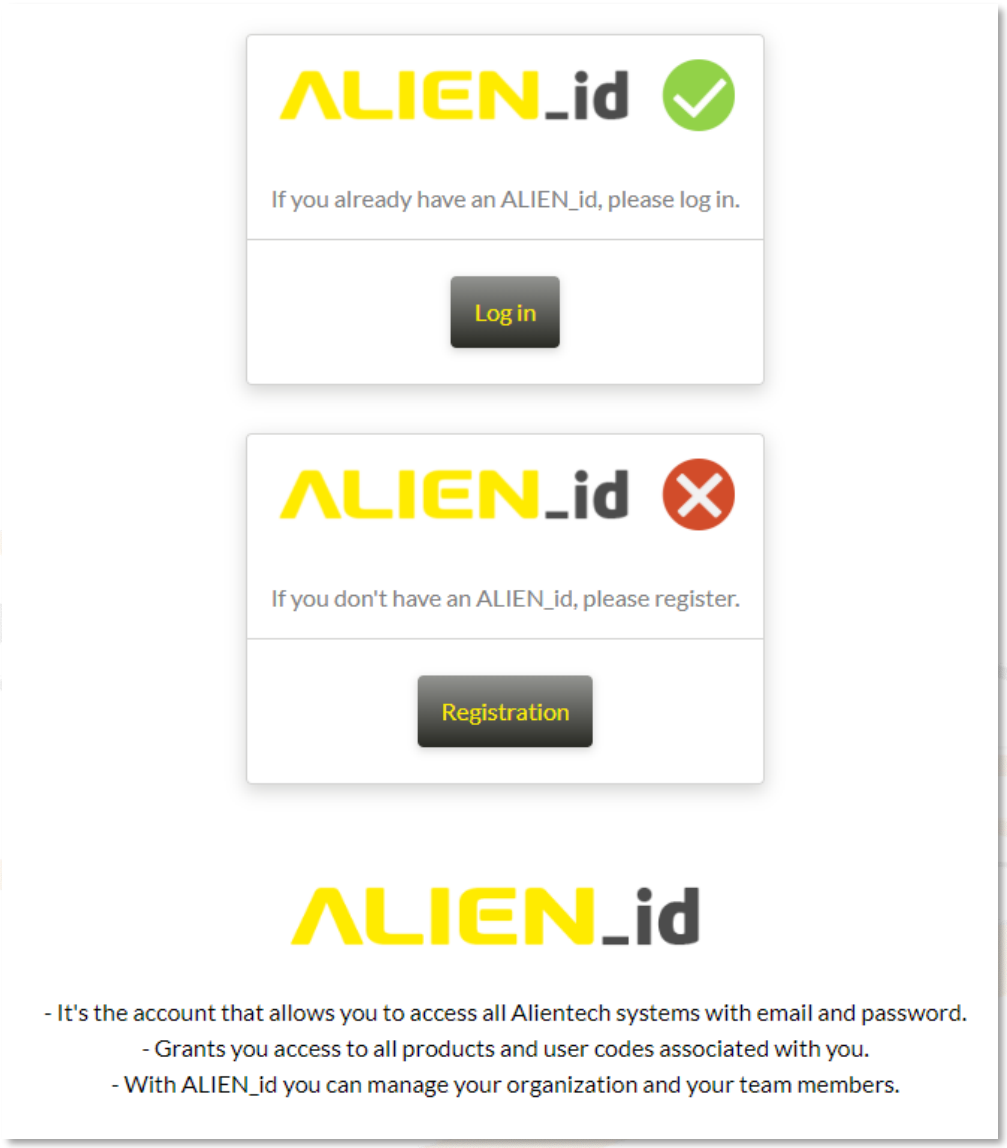


Figure 7: Tool registration page in Alientech Dashboard

Once the registration is complete, disconnect and reconnect the tool to your computer or restart AlientechSuite to use KESS3.

> **You need to register your data to use the tool** and have access to the online services related to KESS3, such as the Technical Support Service and, for Master tool owners, the *Original file* request service or *Encoding Portal*.

Go to the *My Profile* section of the Alientech Dashboard if you need to change any data provided.

For safety reasons, the tool will only work if the computer has an active Internet connection and only in the country indicated during registration. If you need to work in a different country, please contact the Technical Support Service through the Help Desk portal. Up to five (5) different nations can be enabled simultaneously.

Options and settings

AlientechSuite main page

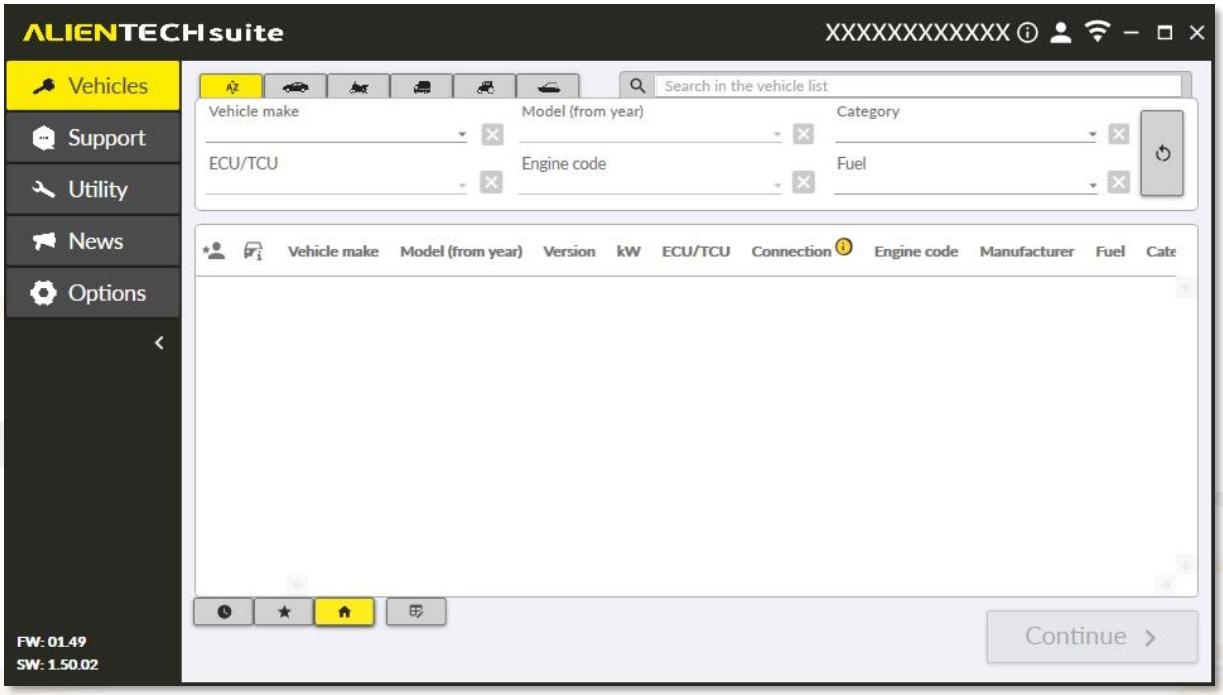


Figure 8: AlientechSuite main page

On the top right, you can find the serial number of the tool connected.

On the bottom left, you can find the firmware version of the tool connected and software version of AlientechSuite installed.

On the left part of the window, you can find the side menu of AlientechSuite, while the pane on the right will display the pages related to the functions selected from time to time. AlientechSuite software at startup automatically proposes the Vehicle List main page.

Click the icon ⓘ on the top right to display the information of the connected tool and copy its serial number. To copy the serial number, click the icon .

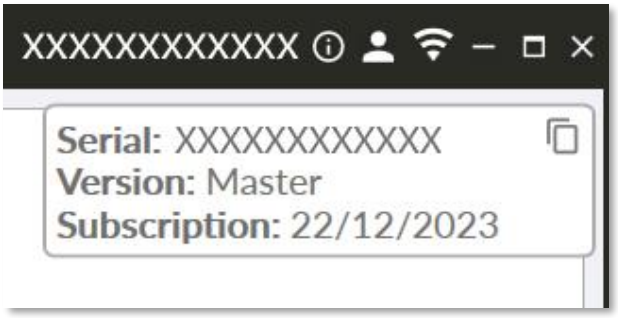
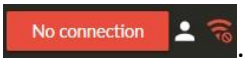


Figure 9: Information on the connected tool

Click the icon on the top right to go to the Alientech Dashboard.

The icon on the top right shows the status of your Internet connection. In case an Internet connection is not detected, a red warning is displayed: 

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KESS3 Master - available features and services

Feature / Service	Free of charges	Upon subscription
AlientechSuite software updates	✔	✔
Update of protocols purchased with KESS3 or activated before the subscription expiration date	✔	✔
Activation of new developed protocols	✖	✔
Virtual Reading	✖	✔
Bosch ECU clone – VAG group	✖	✔
ECU clone – other brands	✔	✔
Original file request	✖	✔
Access to the Help Desk Portal	✔	✔
*Access to the Encoding Portal **	✔	✔
*Access to the KESS3 Backup Management ***	✖	✔

* Access to the Encoding Portal is reserved for organizations owning KESS3 Master tool with at least one Slave tool associated.

**** Access to this service is subject to the purchase of the corresponding activation.**

KESS3 Slave - available features and services

Feature / Service	Free of charges	Upon subscription
AlientechSuite software updates	✔	✔
Update of protocols purchased with KESS3 or activated before the subscription expiration date	✔	✔
Activation of new developed protocols	✖	✔
Virtual Reading	✖	✔
ECU clone – all brands	✖	✖
Original file request	✖	✖
Access to the Help Desk Portal	✔	✔
Access to the Encoding Portal	✖	✖
Access to the KESS3 Backup Management	✖	✖

AlientechSuite side menu

Figure 10: AlientechSuite side menu

Click the arrow to resize the side menu and display only the icons without their descriptions.

.

Vehicles

Click the <**Vehicle**> button in AlientechSuite side menu to browse all the vehicles supported by KESS3.

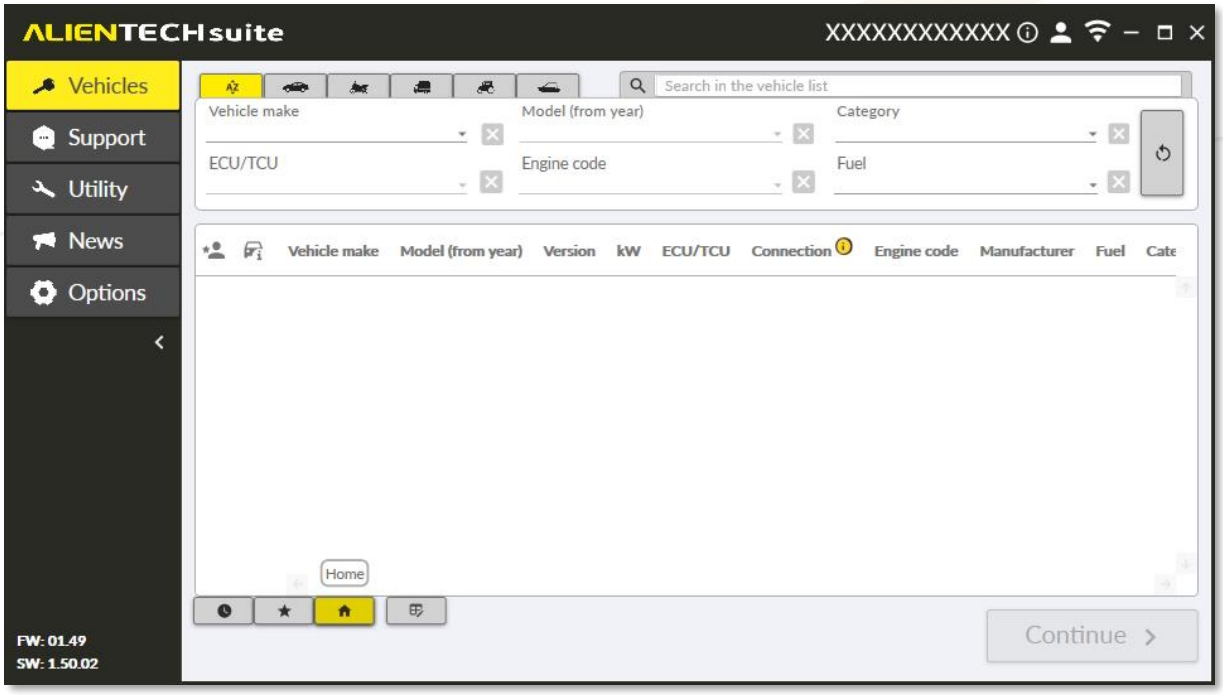


Figure 11: AlientechSuite *Vehicle List* **main** page

You can search for and select a vehicle within the AlientechSuite vehicle list even if the tool is not connected to the computer or during tool synchronization.

Options and settings of the vehicle list

You can sort the data in each column in the AlientechSuite vehicle list in ascending or descending order, except the "Connection" column, simply by clicking on the column title.

In addition, you can change the order of the columns in the AlientechSuite vehicle list. To change the order of the columns:

1. Select the column title with the mouse left button.
2. Drag the column left or right, holding the left mouse button pressed, until you reach the desired position.
3. Release the mouse button.

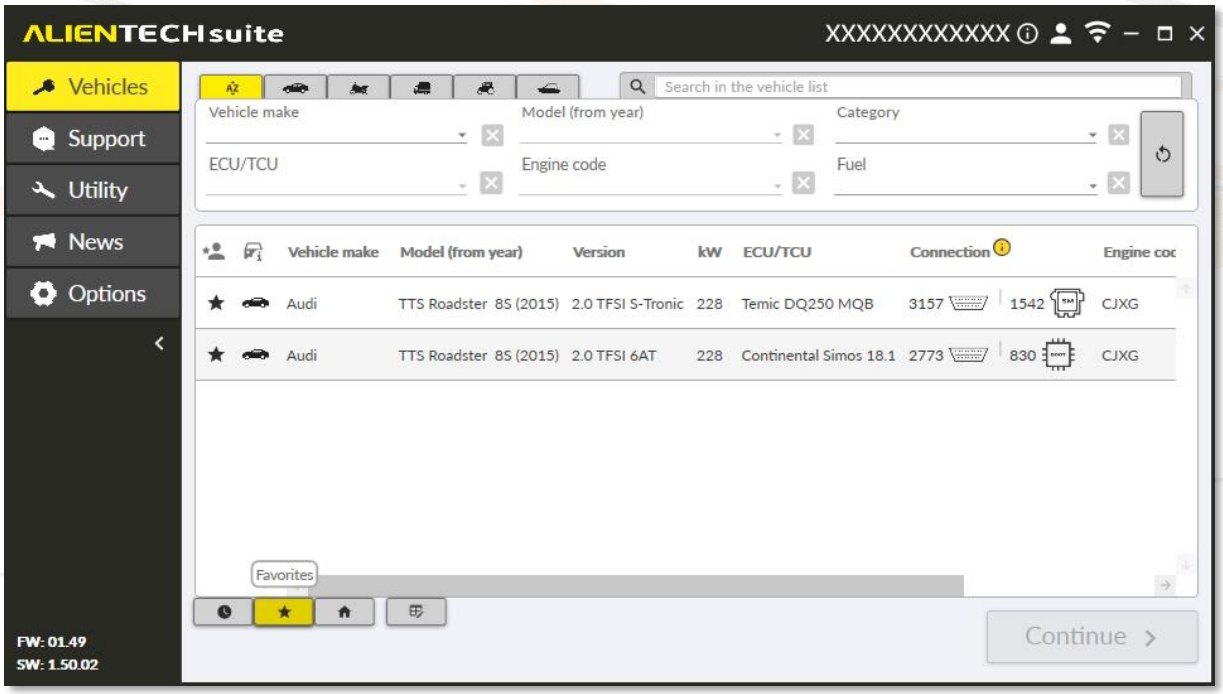


Figure 12: AlientechSuite *Vehicle List* page with preset column order

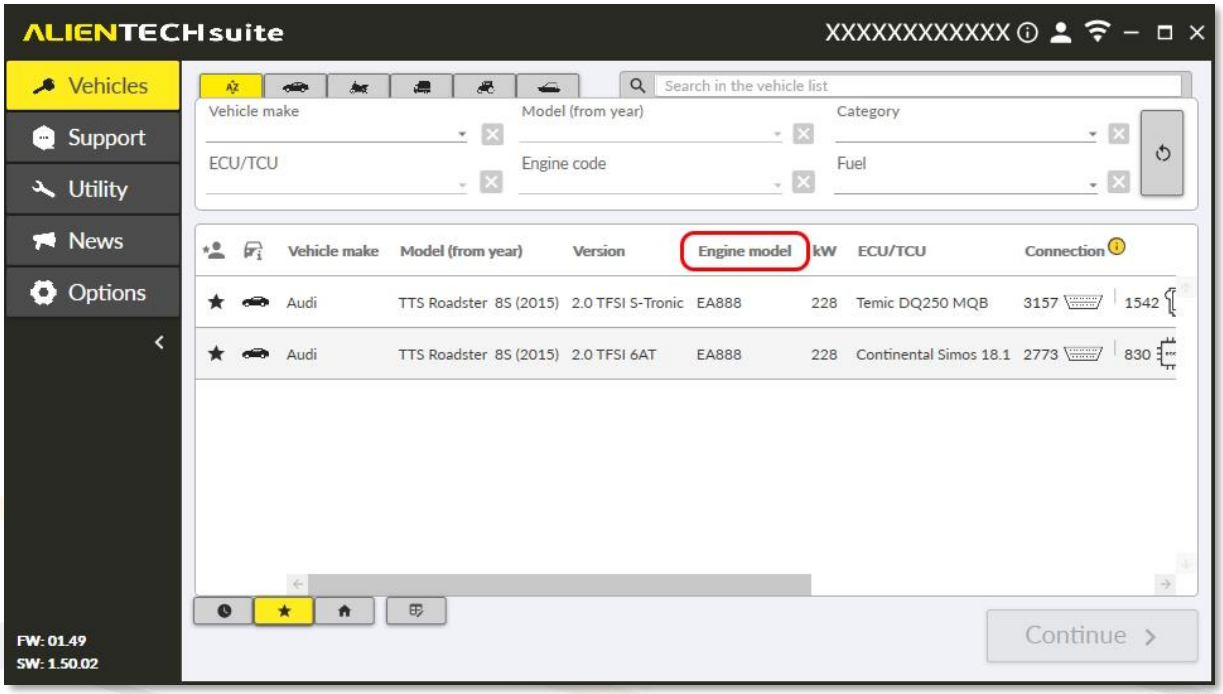


Figure 13: AlientechSuite *Vehicle List* page with changed column order

Click the icon  in the lower left corner of the AlientechSuite vehicle list to open its main page: the page is blank. The data of the vehicle or control unit searched will be displayed here.

Click the icon  in the lower left corner of the AlientechSuite vehicle list to view the list of all the vehicles added to Favorites (for ex., you can add the most frequently used vehicles.)

To add a vehicle to Favorites, click the ☆ icon next to the desired vehicle. The ★ icon confirms that the vehicle has been added.

> The maximum number of vehicles you can add to Favorites is 50. If you have reached this limit, each further addition removes the oldest vehicle from your Favorites.

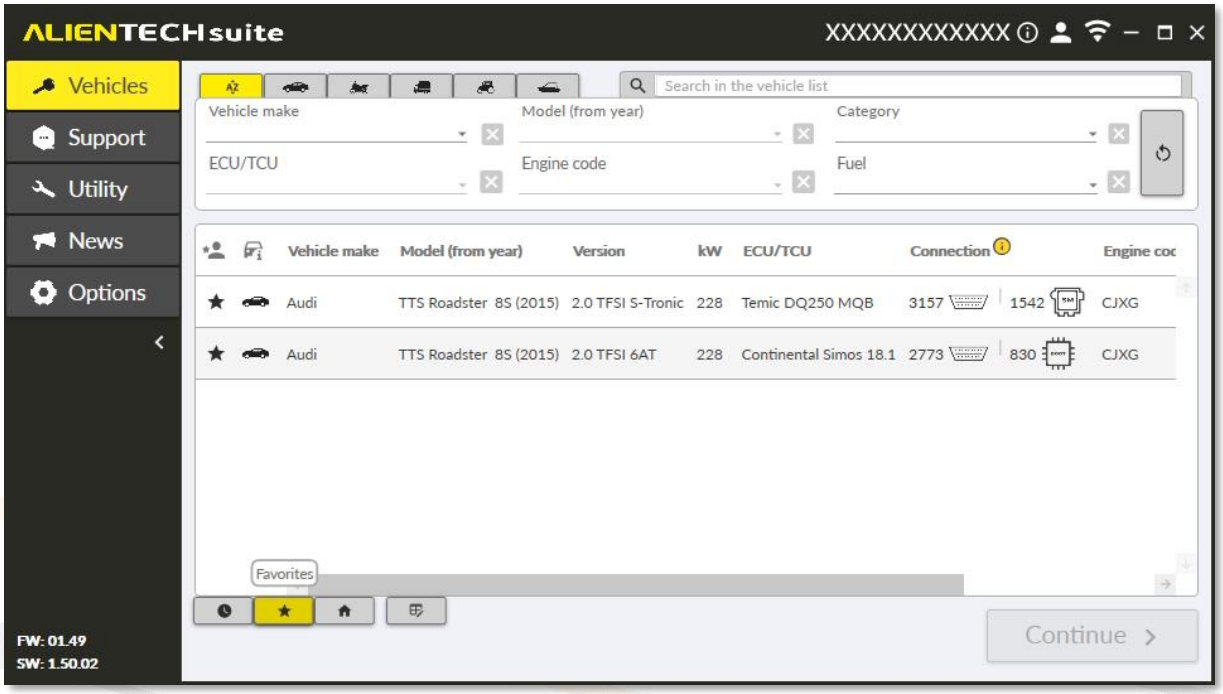


Figure 14: AlientechSuite *Vehicle List* **Favorites** page

Click the icon  in the lower left corner of the AlientechSuite vehicle list to display the list of the last 200 vehicles for which you opened the programming page. The list is in descending order by date of use (i.e., from newest to oldest.) Once this limit is reached, the oldest vehicle will be removed from the list.

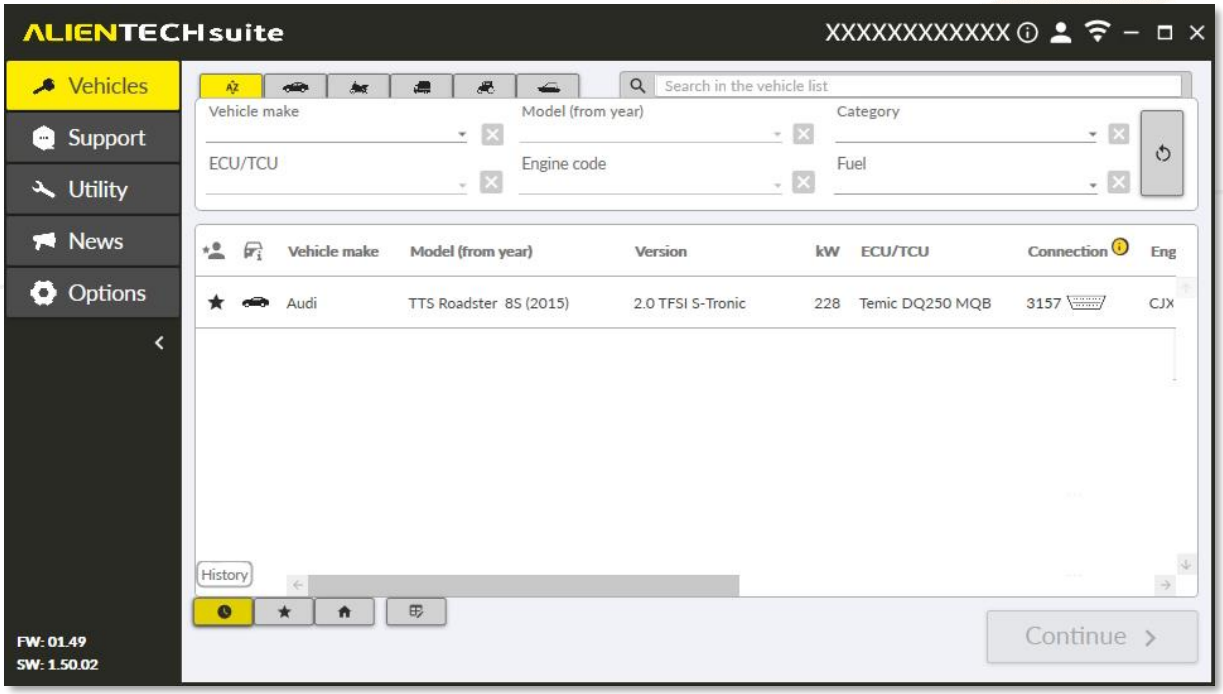


Figure 15: AlientechSuite *Vehicle List* **History** page

Click the icon  in the lower left corner of the AlientechSuite vehicle list to manage the display options of the list.

At the first start of the software, only some visualization data are preselected. If you want to add more vehicle data or hide some of them, select the checkboxes next to the desired data.

After selecting the desired data, click the green button <**Save and Exit**> to save the settings.

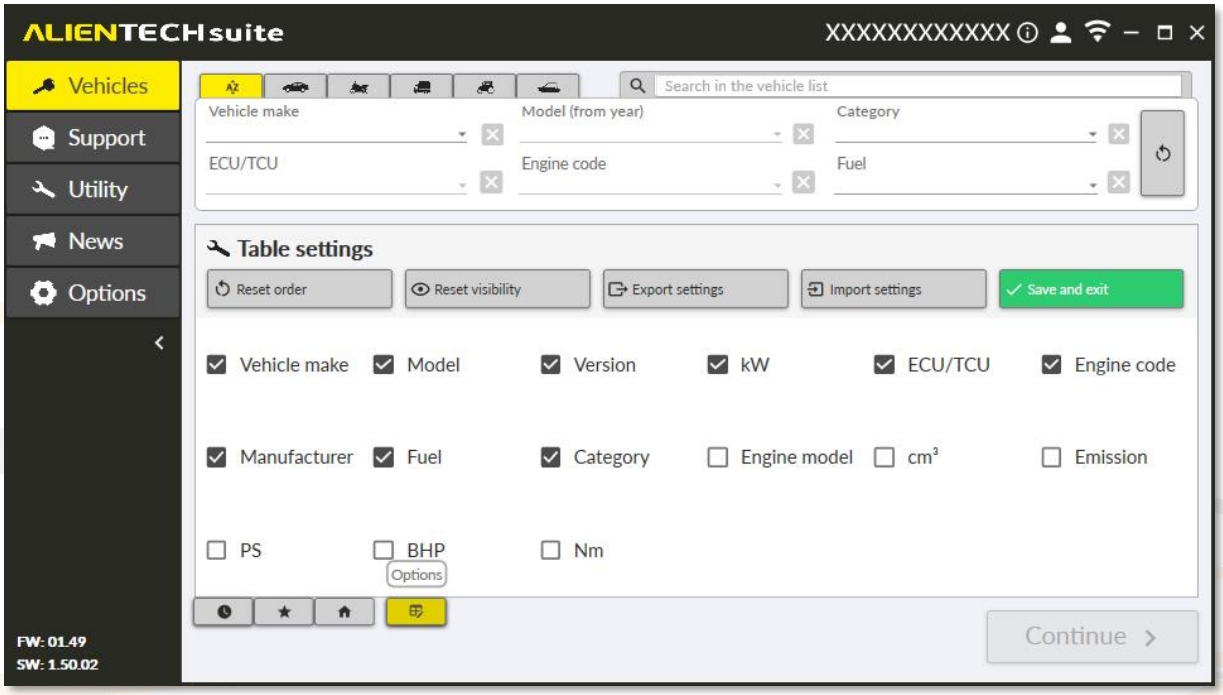


Figure 16: Default AlientechSuite *Vehicle List* display **Settings** page

To restore the display of the vehicle list data to the default setting, click the <**Reset visibility**> button.

To restore the display order of the vehicle list columns to the default setting, click the <**Reset order**> button.

To save the settings you defined for the vehicle list, click the <**Export Settings**> button. AlientechSuite software will propose to save the *AlientechSuite_ColumnSettings* file in .txt format to your computer.

Click the <**Import Settings**> button to import the *AlientechSuite_ColumnSettings* file with the customized vehicle list display settings into AlientechSuite.

> To ensure that custom display settings are handled correctly by AlientechSuite software, it is important not to change the name of the *AlientechSuite_ColumnSettings* file.

To find out how to select a vehicle for programming, see the Searching and selecting a vehicle chapter.

Support

By clicking the <**Support**> button in AlientechSuite side menu, your default browser is opened, and you are redirected directly to the Help Desk Portal, where you will be able to submit a request to the Technical Support Service.

Utility

By clicking the <**Utility**> button in AlientechSuite side menu, you can access the services offered by Alientech srl to its customers.

Buttons are available according to the type of tool and authorizations owned.

- **Original files.** Service reserved for KESS3 Master owners to download or request an original file. Access to this section of the Dashboard is subject to having a valid subscription.
- **Encoding portal**. Service reserved for KESS3 Master owners with at least one Slave tool associated to their organization, to decode and encode files received from their Slave users.
- **Backup management**. Service reserved for KESS3 Master owners, to manage backup files of Master or Slave tools. Access to this section of the Dashboard is subject to the purchase of the corresponding activation.

If the tool has not yet been registered or is not connected to the computer, the Internet connection is not detected, or the connected tool is a Salve, only the <**Original files**> button will be available, but it will be disabled and therefore cannot be selected.

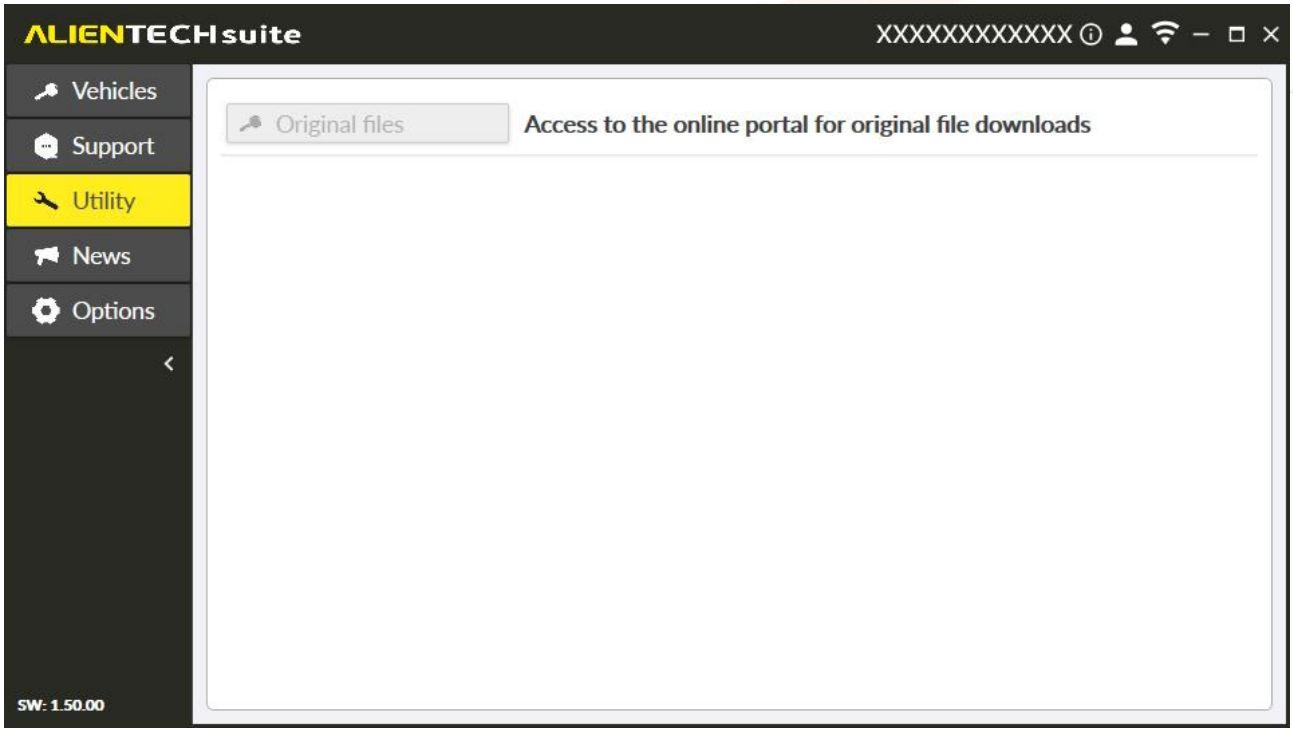


Figure 17: AlientechSuite *Utilitiy* page - **Original files** button not enabled

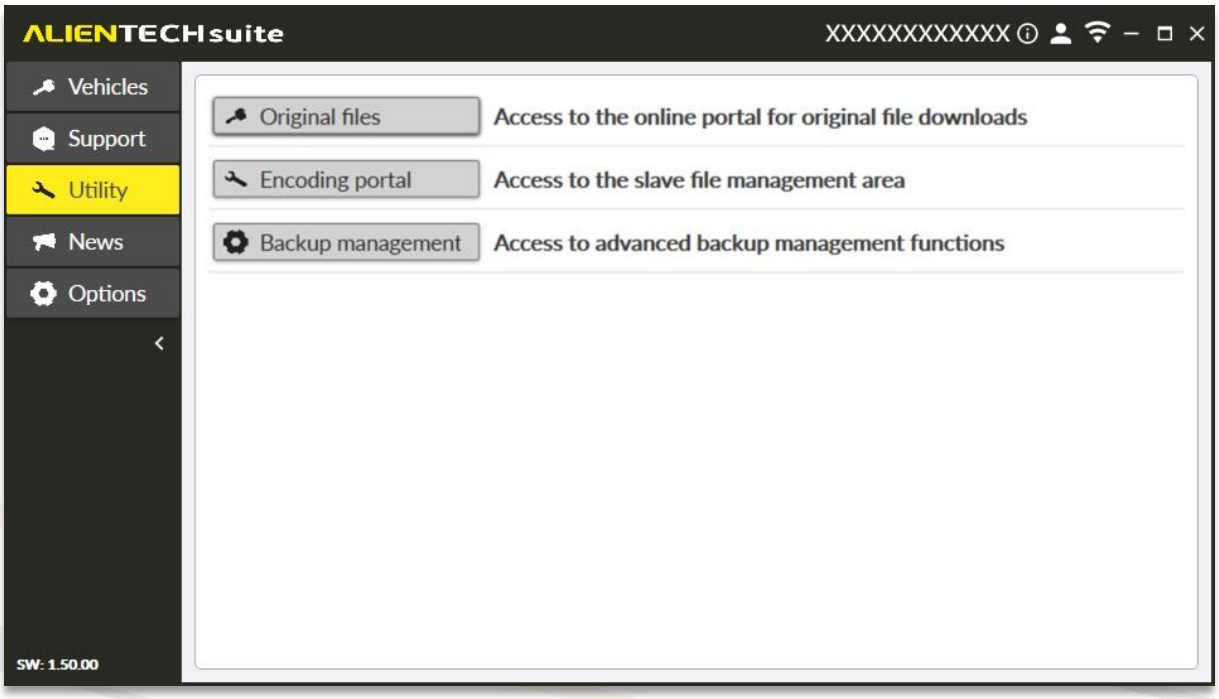


Figure 18: AlientechSuite *Utilitiy* page - all buttons available and enabled

News

By clicking the <**News**> button in AlientechSuite side menu, your default browser is opened, and you are redirected directly to the page of Alientech Srl institutional website dedicated to the latest news.

Options

By clicking the <**Options**> button in AlientechSuite side menu, you can manage the software options.

Figure 19: AlientechSuite *Options* main page

Language

By clicking the <**Language**> button in the *Options* section you can change, at any time, the language of AlientechSuite software selected during installation, choosing among one of the nine currently available.

To change the software language, just click the desired one.

Legal notices

By clicking the <**Legal notices**> button in the *Options* section you can review the AlientechSuite Software license agreement, the Terms of use of software and tool, the Warranty conditions for the tool, and the Privacy notice about the processing of personal data.

To review the documentation in the *Legal notices* section, your computer must be connected to the Internet.

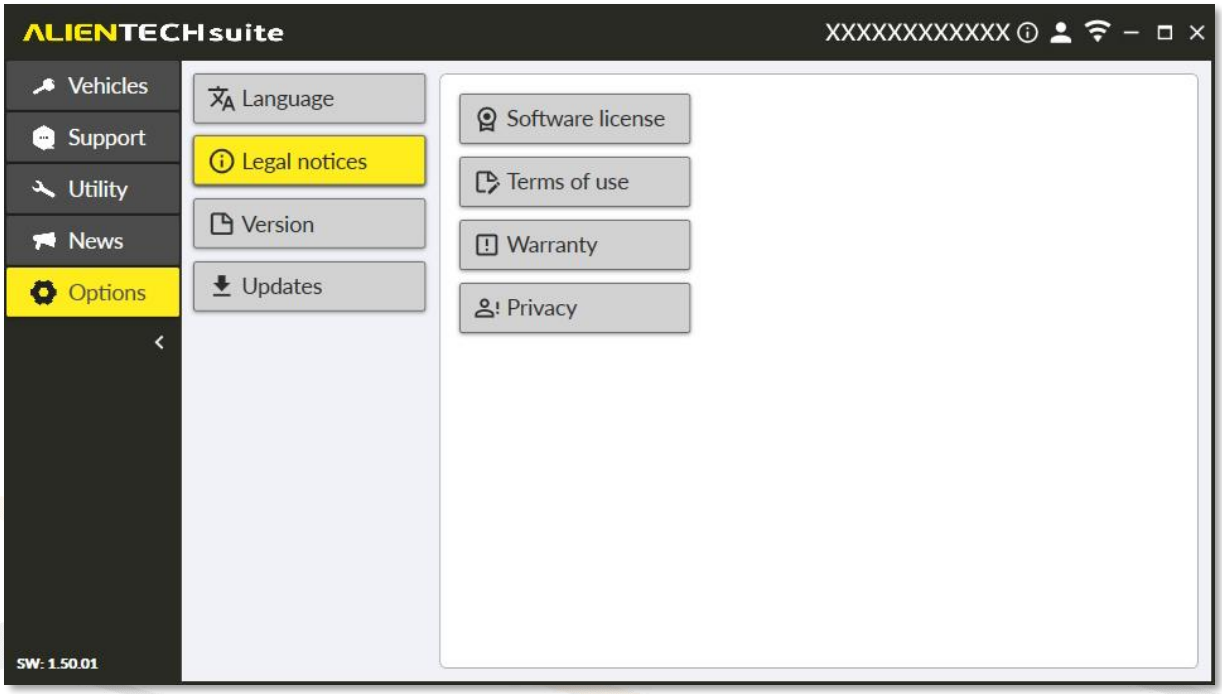


Figure 20: *Legal notices* page

Version

By clicking the <**Version**> button in the *Options* section you can see a chronological list of all the version notes of the software, in descending order by publication date.

By clicking the button 

next to the desired version note, your default browser is opened, and you are redirected directly to the page of Alientech srl institutional website containing the news of the selected version.

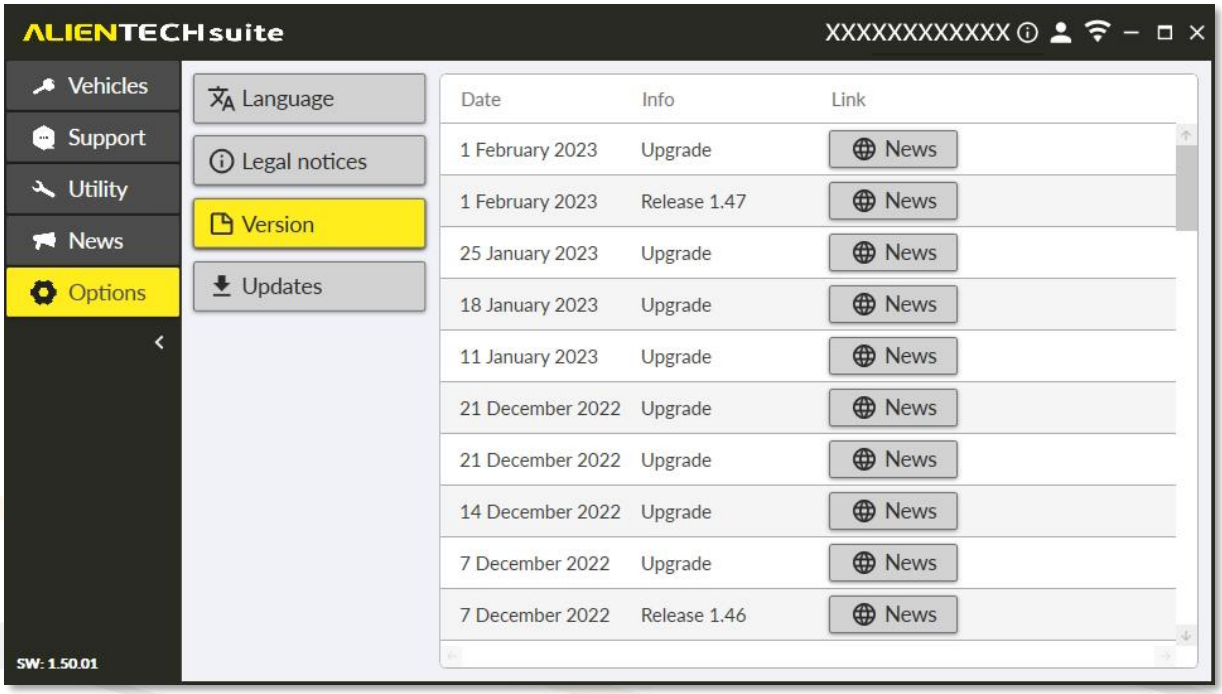


Figure 21: *Version* page

Use the side bar to scroll through the list and view older version notes.

Updates

When starting AlientechSuite, available software updates are automatically searched for.

> AlientechSuite software updates distributed by Alientech srl can be downloaded free of charge by any AlientechSuite user.

Updates may concern:

- AlientechSuite software: For example, introduction of new settings, changes to existing features, correction of any errors, implementation of security procedures, etc.
- Vehicle: introduction of new vehicles and new control units supported.

Figure 22: Notice of update available

New updates available for download are indicated by a red dot both next to the *Options* button and *Updates* button.

Figure 23: *Options* page with an update available

To download any available software updates that you chose not to install when starting AlientechSuite:

1. Click *Options* in AlientechSuite main window.
2. Click *Updates* and follow the instructions provided on-screen.

Whenever AlientechSuite detects the tool connection, any tool updates are automatically searched for and installed.

Tool updates may concern, for example, updates of the firmware or components needed for the tool.

Updates and/or upgrades of existing protocols or release of new protocols takes place automatically without the need for user interaction.

> You can use the protocols activated when you purchased the tool even after the subscription is expired, while activation of new protocols developed and distributed by Alientech srl is subject to possession of a valid subscription.

When updating KESS3 tool, it may be necessary to use the 1400K3ALIM power supply for the update to be successful: if the power supply needs to be connected, AlientechSuite will display a warning.

> **Notice**
>
> When updating AlientechSuite software or KESS3 tool:
>
> - **DO NOT** unplug the USB cable.
> - **DO NOT** turn off the computer**.**
> - **DO NOT** shut down AlientechSuite unless specifically requested to do so by the software.

Time taken to download updates may vary depending on the Internet connection used and traffic on Alientech's servers.

It is important to keep the software updated to the latest version, to ensure the safety of operations and make full use of KESS3 features. It is therefore advisable to download and install an AlientechSuite software update as soon as possible.

Operating procedures

To use the tool, the computer must be connected to the Internet. If the computer is not connected to the Internet, or the tool is not connected to the computer, you will only be able to browse the list of supported vehicles.

Searching and selecting a vehicle

To find a vehicle in the vehicle list, you just have to set one or more search criteria.

You can select a vehicle using three different search methods:

- **Search by vehicle make and model,** using the filters in the *Vehicle Make, Model, Category* and *Engine Code* columns.
- **Search by ECU,** using the filters in the *Vehicle Make* and *ECU/TCU* columns**.**
- **Search by data,** entering known data in the search bar**.**

You can combine different search methods, setting one or more criteria, and then selecting the desired vehicle among the displayed results.

You can also carry out these searches within the complete vehicle list (using the icon ), or within a single vehicle type, selecting one of the icons representing the various vehicle types.

Figure 24: Icons depicting vehicle types

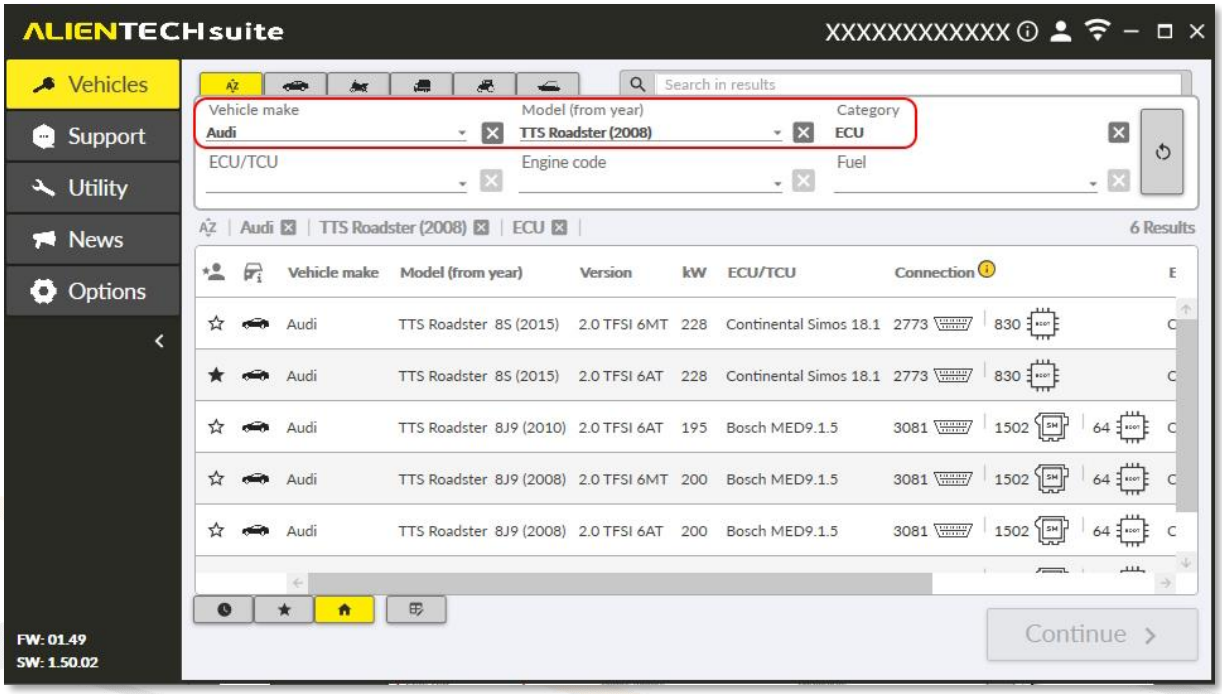


Figure 25: Example of vehicle selection by Make and Model of the vehicle and Category of the control unit

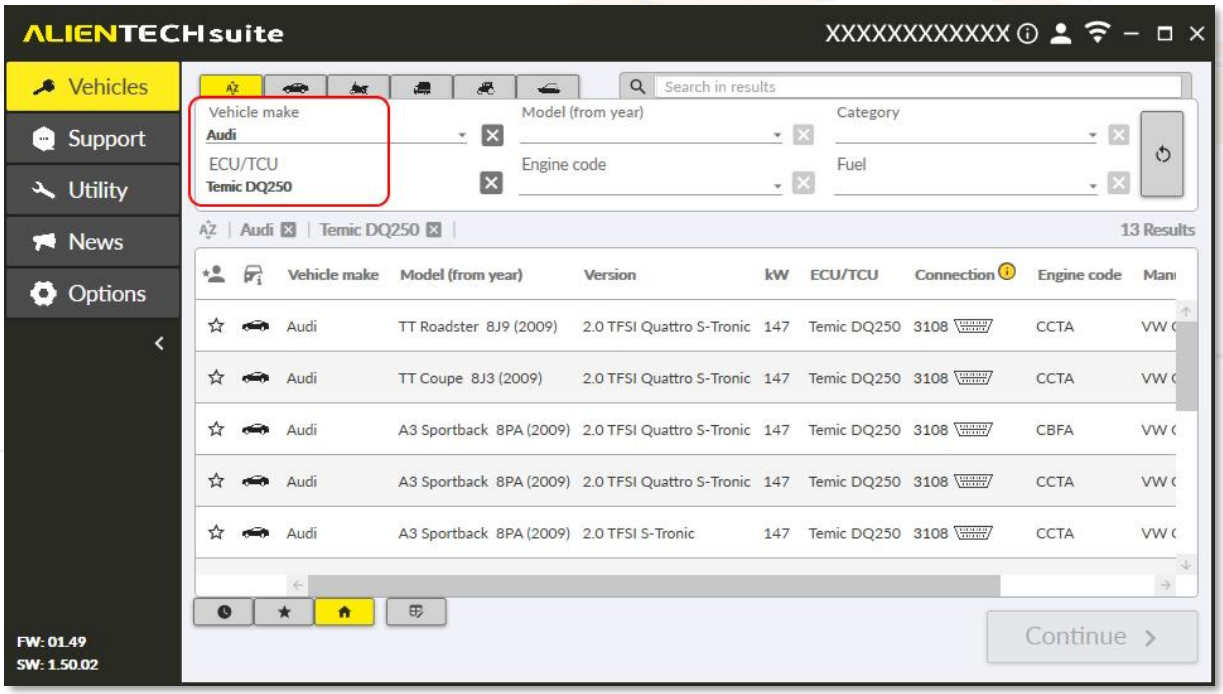


Figure 26: Example of vehicle selection by vehicle Make and Control unit

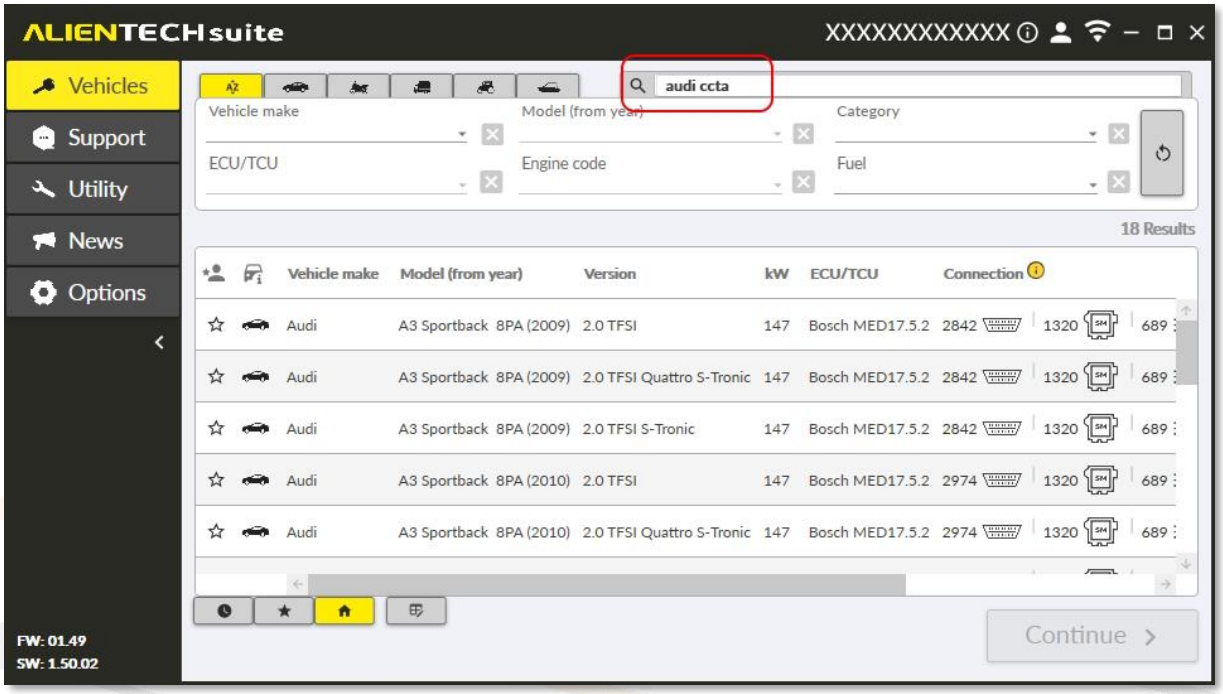


Figure 27 Example of vehicle selection by Data (make and engine)

Click the icon to remove a filter, or the icon to clear all the data, then set new selection criteria to search for another vehicle.

After finding the vehicle you wish to work on, select it and click the <**Continue**> button at the bottom right to open the communication mode selection page.

In the *Selection info* box, on the left side of the communication mode selection page, the data of the vehicle are displayed, while in the *Connection* box on the right side, the available communication protocols are proposed, divided by type of control unit.

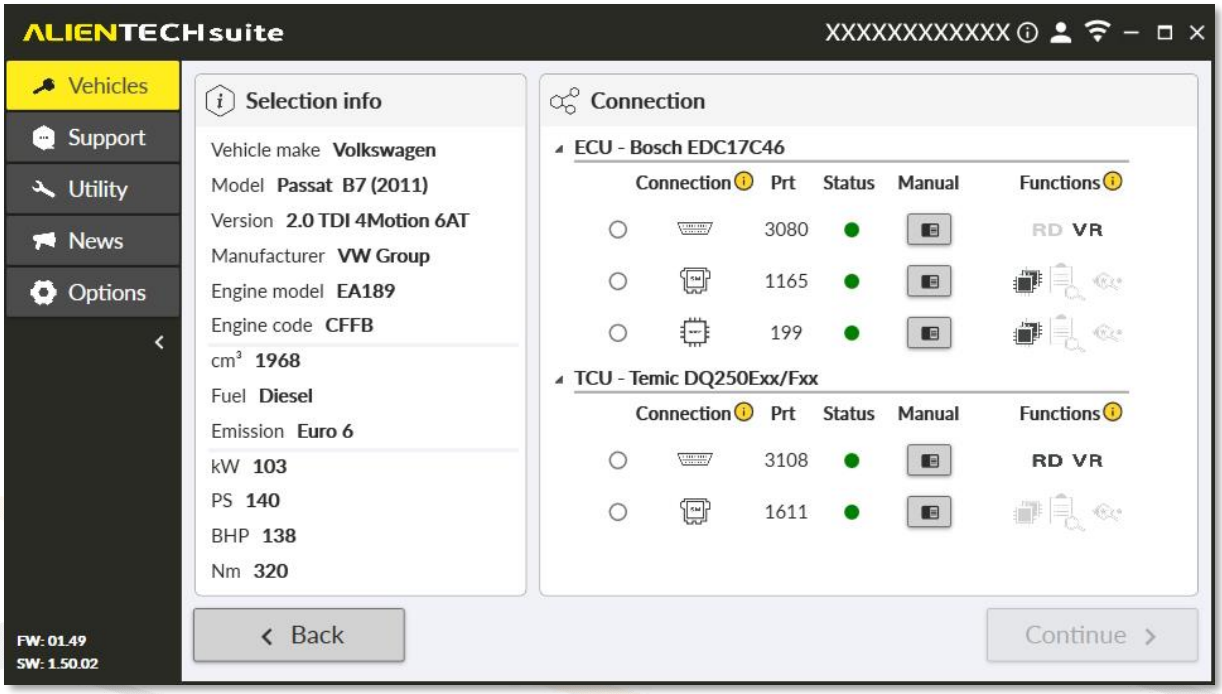


Figure 28 Example of a communication mode selection page

Click the icon ⓘ next to the *Connection* or *Functions* columns to open the legend page with descriptions of the connection modes and functions that could be available for the selected vehicle.

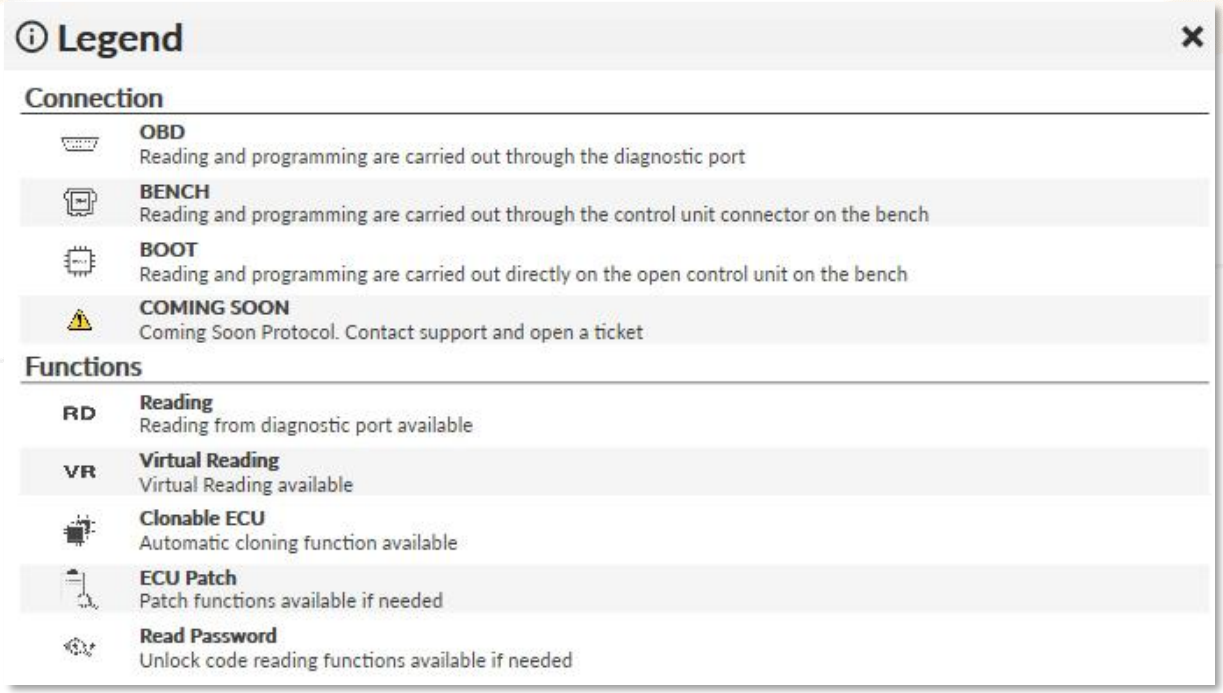


Figure 29: Legend page with connection modes and protocol functions

If the protocol status is marked with a red dot, the protocol is not active on the connected tool.

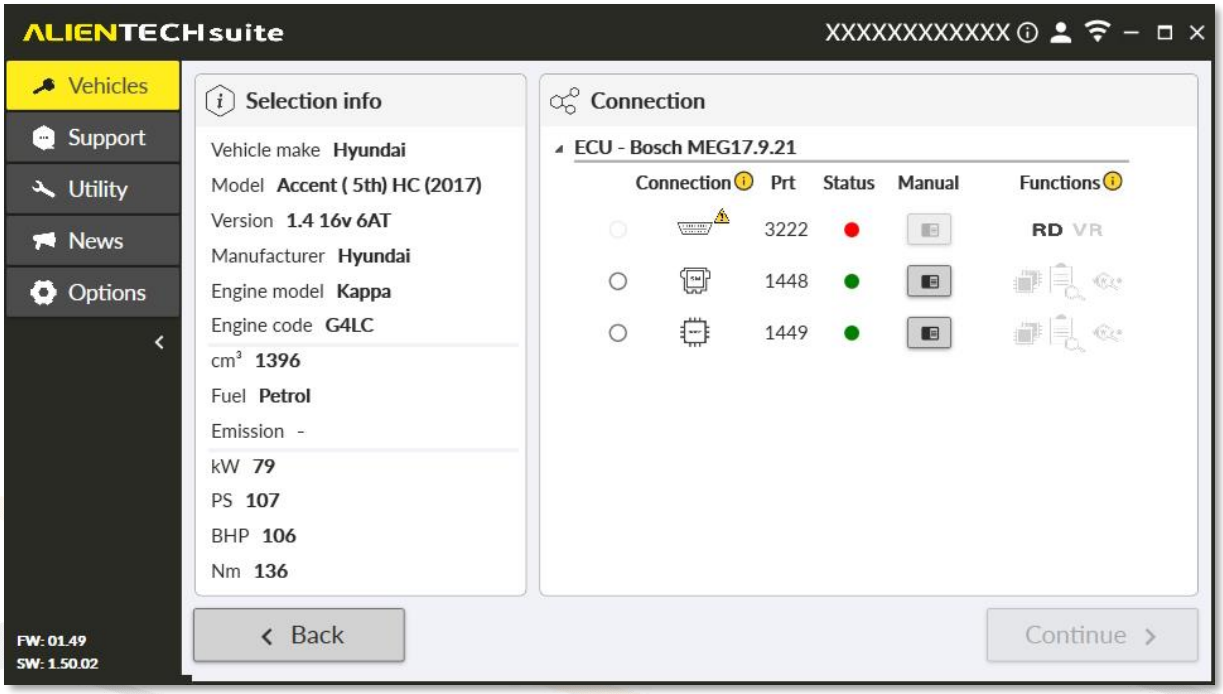


Figure 30: Example of a protocol not active on the tool connected

This could be due to:

- Coming Soon protocol, i.e., a new developed protocol that will be released soon (recognizable by the icon ⚠ next to the connection mode symbol.)
- Protocol released after the expiration date of your subscription.
- Protocol belonging to a group of protocols not enabled on your tool.

Even if the subscription is expired, all protocols enabled up to the expiration date of the subscription will always be active and available for use.

If you want to request the activation of a Coming Soon protocol, for example to perform tests, click on the connection mode symbol of the Coming Soon protocol: the Help Desk portal will be opened, where you can open a Ticket and forward the activation request. The Technical Support Service will evaluate whether the protocol can be enabled: **activation depends on the protocol development status and is done at the sole discretion of Alientech srl.**

If you want to purchase a group of protocols, a single protocol not active on your tool, or renew an expired subscription, click on the connection mode symbol of the non-enabled protocol: the Alientech Dashboard will be opened, where you can proceed with the purchase. As an alternative, you can contact your dealer.

Select the connection mode you wish to use: AlientechSuite will propose to open the Operating Manual to check any advice to follow for proper communication (OBD mode) or compare label and printed circuit of the control unit (Bench and Boot mode), to make sure your control unit corresponds to the one supported by the protocol.

Some control units may not fully correspond to the model researched by Alientech srl, supported by AlientechSuite software and KESS3 tool, and listed in the vehicle list. Under no circumstances Alientech srl can be held liable to you or any third party for any damage, injury, loss or claim or cost of any kind and for whatever reason, arising from such lack of correspondence.

Click the <**Continue**> button to access the programming page of the selected communication mode.

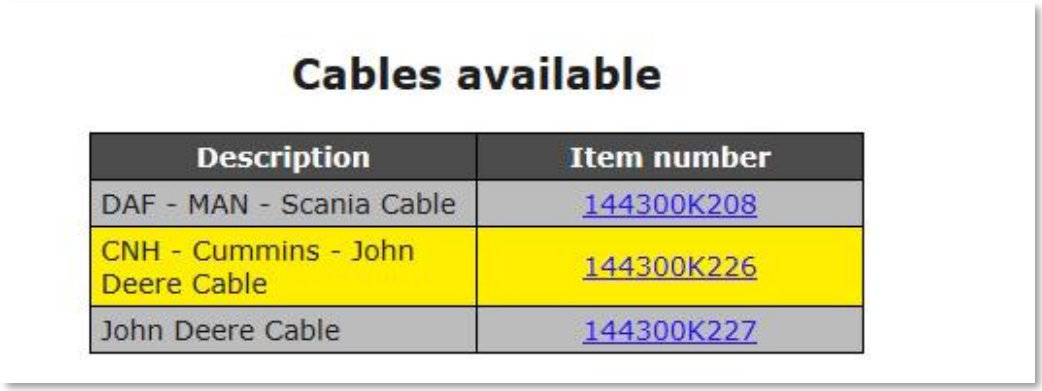
If the tool is not connected to the computer or the computer does not have an Internet connection, all protocols are disabled, and you cannot click the <**Continue**> button to access the programming page.

Operating manuals

After selecting the desired vehicle or control unit, you click the icon  to open the Operating Manual if you chose not to open it when selected the communication mode and view the warnings and instructions for connection and use for the protocol dedicated to the selected vehicle.

- You can see only Operating Manuals of protocols enabled for your tool.
- Operating Manuals of the active protocols are always available in AlientechSuite, but only if the tool is connected to your computer and your computer is connected to the Internet.
- All KESS3 owners can open Operating Manuals of the active protocols free of charge, even if there is no subscription or has expired.
- You can open Operating Manuals of the active protocols either in the communication mode selection page or KESS3 programming page.
- **When operating in OBD mode, we recommend you open the Operating Manual before accessing the KESS3 programming page: for some protocols you need to carry out certain operations that, if done after opening the programming page, could affect proper communication with the control unit.**
- You can open up to five (5) Operating Manuals at the same time. However, to avoid errors, once you have identified the correct control unit, it is advisable to close all the irrelevant Operating Manuals.

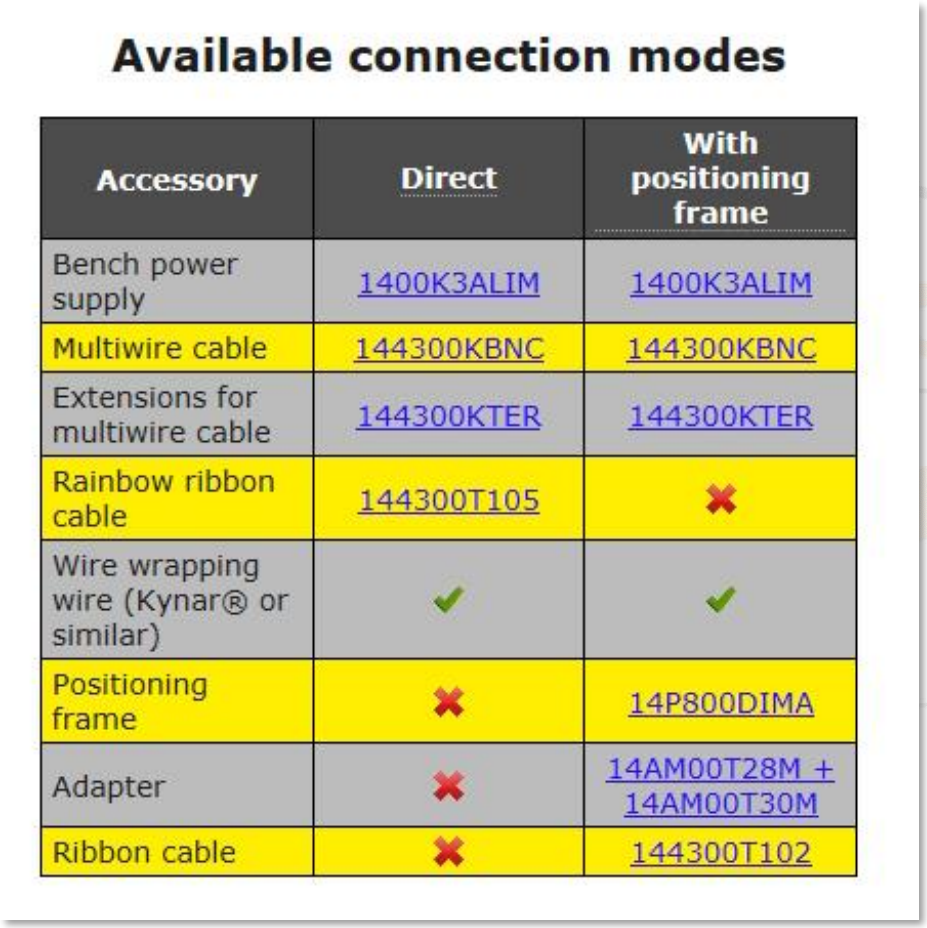
In each KESS3 Operating Manual there is a table with all the cables and accessories needed to connect to the vehicle or control unit.



Cables available

Description	Item number
DAF - MAN - Scania Cable	144300K208
CNH - Cummins - John Deere Cable	144300K226
John Deere Cable	144300K227

Figure 31: Example of accessory table in an Operating Manual – OBD mode



Available connection modes

Accessory	Direct	With positioning frame
Bench power supply	1400K3ALIM	1400K3ALIM
Multiwire cable	144300KBNC	144300KBNC
Extensions for multiwire cable	144300KTER	144300KTER
Rainbow ribbon cable	144300T105	✖
Wire wrapping wire (Kynar® or similar)	✔	✔
Positioning frame	✖	14P800DIMA
Adapter	✖	14AM00T28M + 14AM00T30M
Ribbon cable	✖	144300T102

Figure 32: Example of accessory table in an Operating Manual – Boot mode

Click the item code of an accessory in the table to open a new window in which the manual of the selected accessory is displayed.

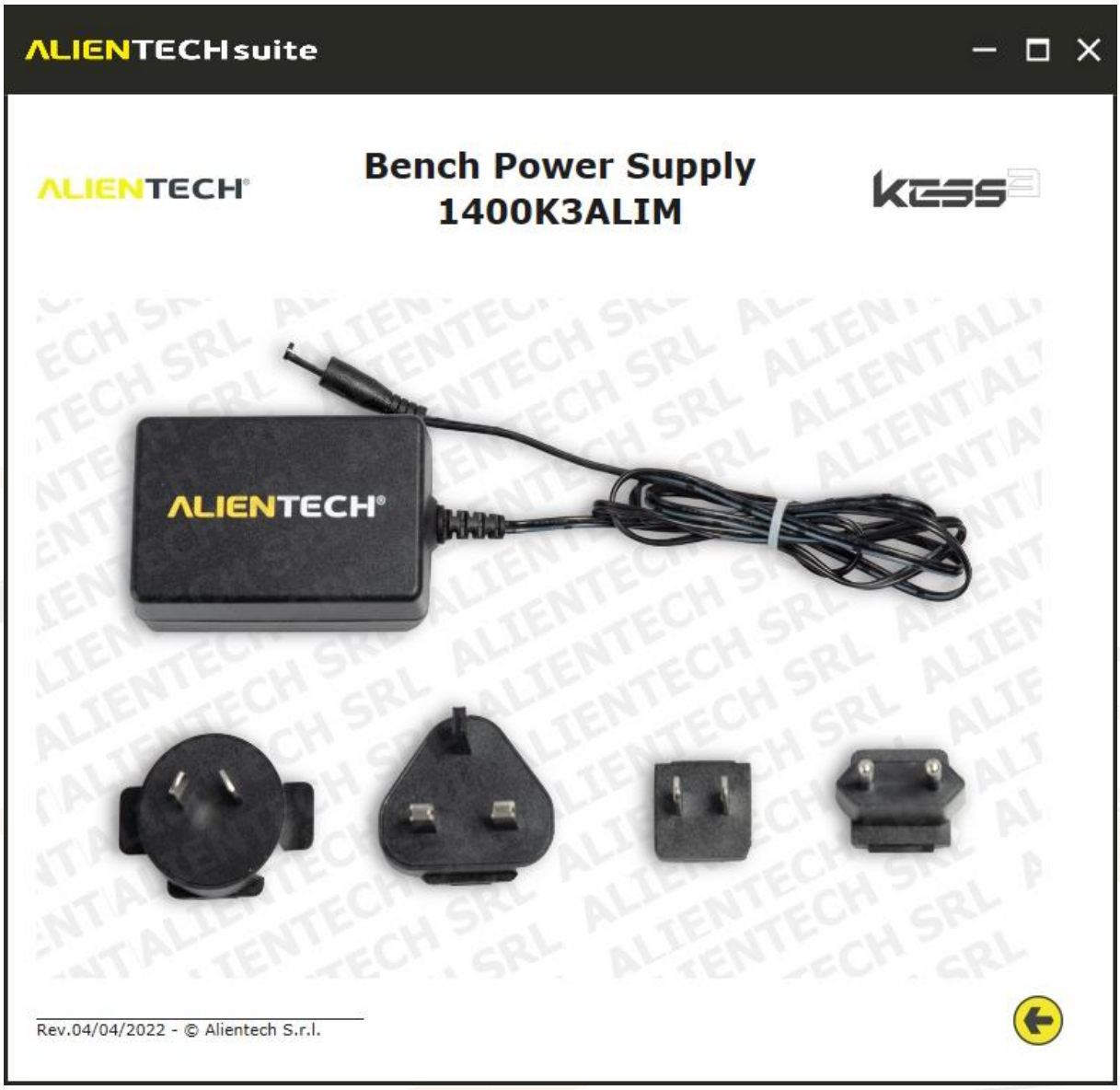


Figure 33: Example of an accessory manual

After opening an accessory manual, to go back to the Operating Manual of the protocol, click the arrow in the lower right corner. Click the "**X**" in the upper right corner to completely close the display window of the Operating Manuals.

When moving the mouse cursor over each photo in an Operating Manual, except those of the control unit cover and label, you can see an enlarged preview on the right, as shown in the example in **Figure 34**:

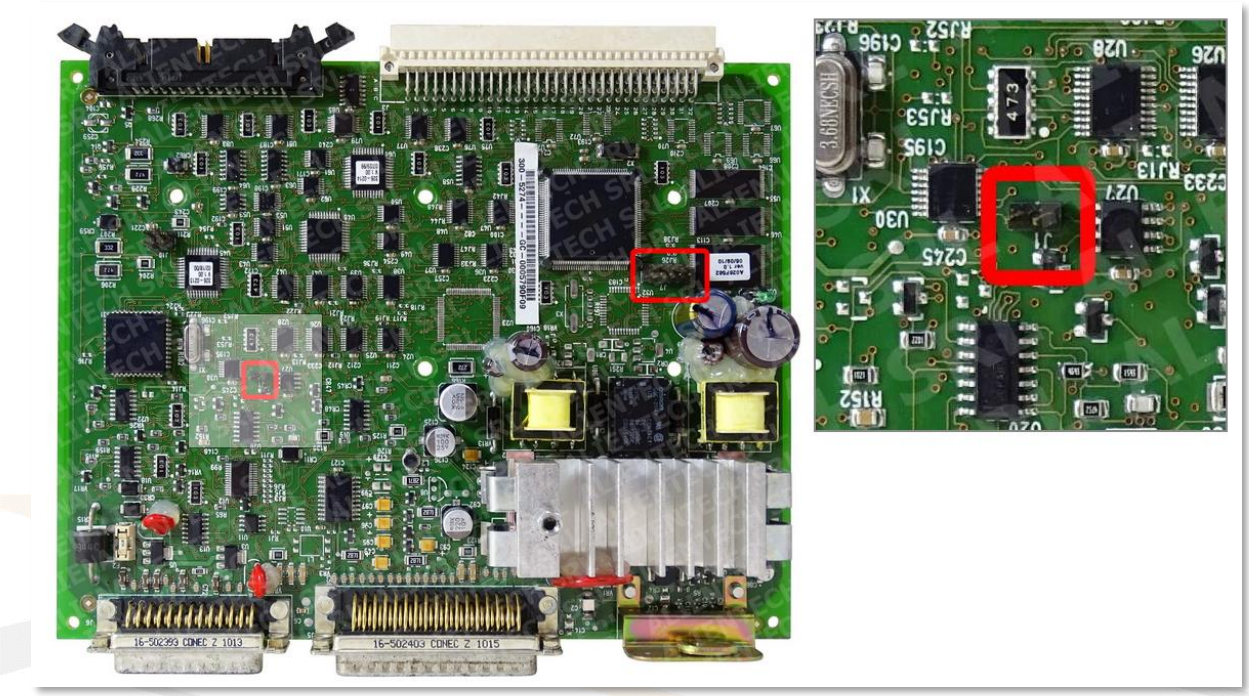


Figure 34: Example of an Operating Manual – detail enlarged

Despite the enlarged preview function, we suggest you enlarge the Operating Manual display page to the maximum size allowed by your computer screen, to better see the details of the connection pictures.

If an Operating Manual is not available, a warning will be displayed.

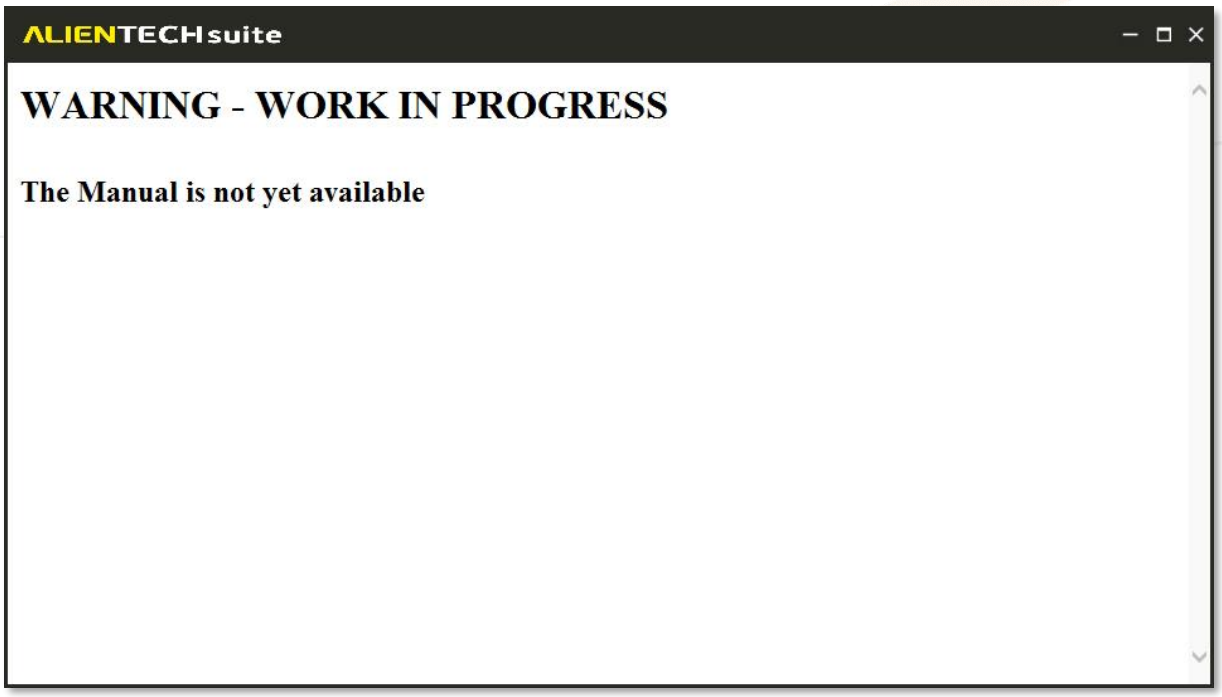
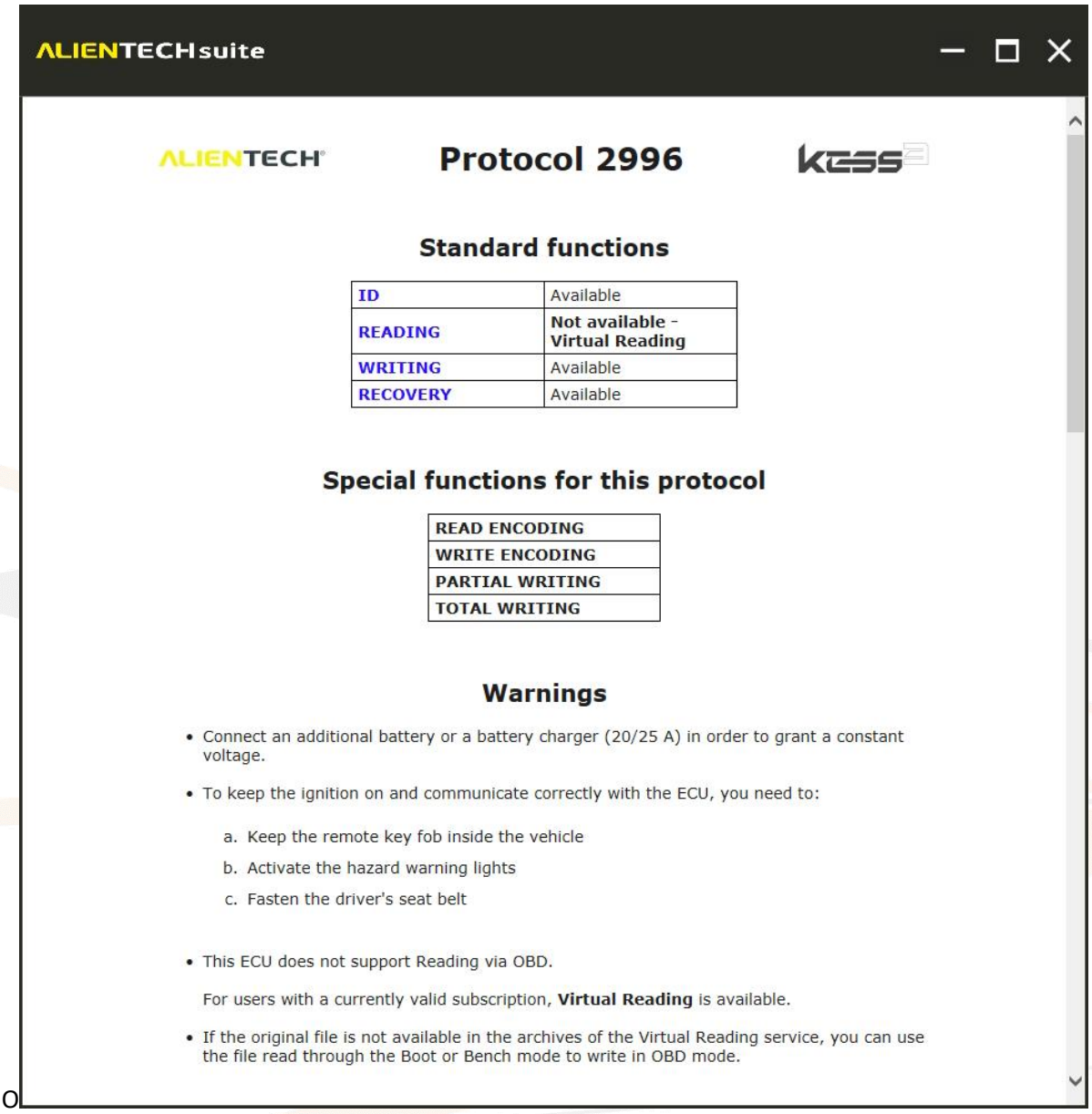


Figure 35: Unavailable Operating Manual message

Operating Manuals – OBD mode

Each KESS3 Operating Manual for OBD mode is divided into several sections:

- **"Standard Functions" table**, available for all protocols, showing the standard programming functions available for the selected protocol.
- **"Special Functions" table**, available only for some protocols, in which the special functions dedicated to the selected protocol are listed. Explanation on how to use these Special Functions can be found in the *Warnings* and/or *Instructions* sections of the Operating Manual.
- **Warnings**, where any precautions to follow to communicate correctly with the control unit are provided.
- **Available cable table**, where all the accessories needed to connect to the vehicle or control unit are listed.
- **Instructions**, where all the procedure to follow to read and write a vehicle are provided.



O

Figure 36: Example of an Operating Manual – OBD mode

In the example in **Figure 36**, the Operating Manual for protocol 2996 shows that Reading is not supported, but the Virtual Readout is available. There are also Special Functions and warnings to follow to communicate properly with the control unit.

Operating Manuals – Bench/Boot mode

Each KESS3 Operating Manual for Bench and Boot mode is divided into several sections:

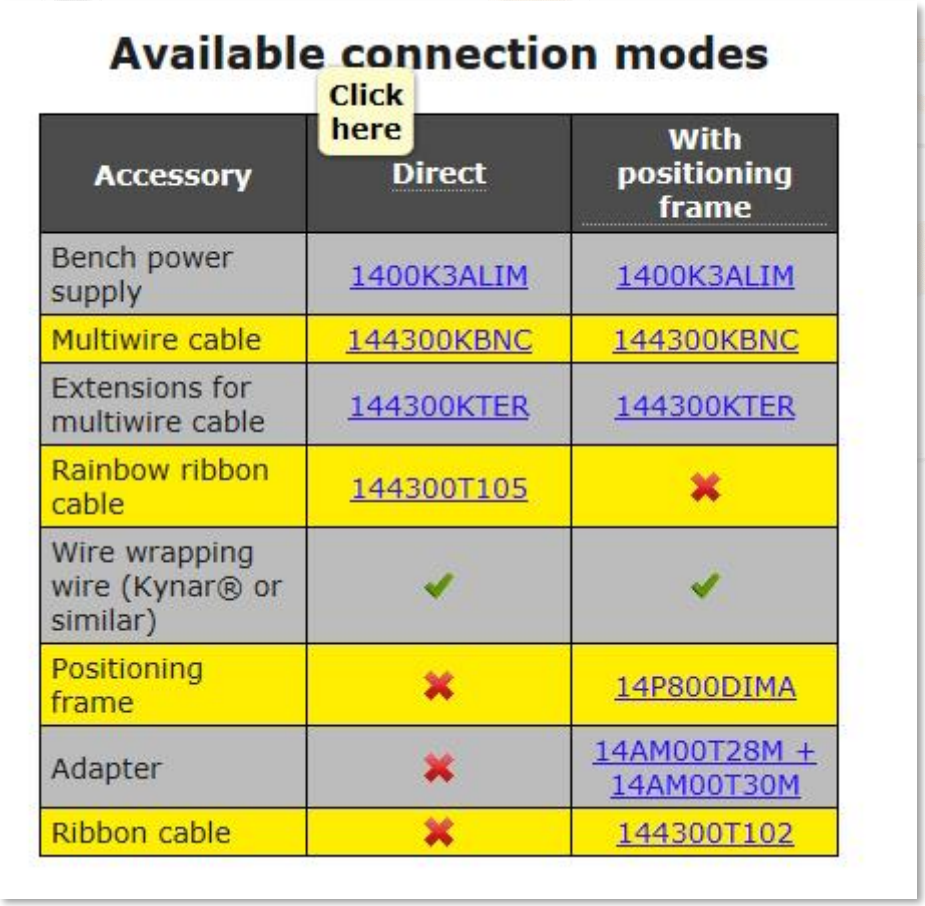
- **Notices**, where any warnings relating to the protocol and precautions to be followed to communicate correctly with the control unit are provided.
- **Instructions**, in which the photos of the control unit cover, its label, and electronic board are provided, as well as any special procedures to follow for the opening. In the photo of the electronic board, the area where the programming pads are located is circled in red.

- **"Available connection modes" table**, where all the accessories required for connection with the control unit are listed according to the available connection mode.
- **Connections**, where all the steps to follow to connect with the control unit are explained, together with illustrative photos.

Whenever possible, check that the numbers on the label in the Operating Manual match those of your control unit.

Also check that the model and electronic board of your control unit correspond to the photos in the Operating Manual: if you are not sure they match, we suggest you contact the Technical Support Service through the Help Desk Portal, attaching photos of the label, control unit cover, and electronic board inside.

In the " Available connection modes " table, clicking on the column heading of a connection mode automatically redirects you to the section of the Operating Manual containing the instructions to follow for the desired connection mode.



Available connection modes

Click here

Accessory	Direct	With positioning frame
Bench power supply	1400K3ALIM	1400K3ALIM
Multiwire cable	144300KBNC	144300KBNC
Extensions for multiwire cable	144300KTER	144300KTER
Rainbow ribbon cable	144300T105	✖
Wire wrapping wire (Kynar® or similar)	✔	✔
Positioning frame	✖	14P800DIMA
Adapter	✖	14AM00T28M + 14AM00T30M
Ribbon cable	✖	144300T102

Figure 37: Example of accessory table in an Operating Manual – link to the connection instructions

Recommendations and warnings to follow for proper programming

Before starting to use KESS3, it is important to remember that:

- Before flashing a file to the vehicle with the purpose of tuning its performances, it is good practice to carry out a thorough diagnosis of the control unit using a specific diagnostic tool, to check for DTC codes. **If DTC codes concerning the engine and/or transmission are detected, you can make the ID but do not write any file**: before writing a file, you must resolve any pre-existing problem on the vehicle.

- Even when you need to remove the control unit on which you need to work from the vehicle, before disconnecting the control unit, it is good practice to carry out an in-depth diagnosis of the vehicle through an appropriate diagnostic tool and solve any pre-existing problems on the vehicle before continuing.

- Before disconnecting the control unit on which you need to work, it is advisable to remove the fuse that protect the electrical power supply of the control unit with **ignition completely turned off**, so that you can remove the control unit without cutting off the power to all the other electrical systems of the vehicle. Set back this fuse after programming and reconnecting the control unit to the vehicle. If you cannot remove this fuse, it is advisable to unplug the vehicle battery before disconnecting the control unit.
  Warning! If the power supply of the whole vehicle is removed, please note that some calibration data (for example, ADAS systems) or configuration data (for example, radio system, infotainment, or on-board computer) of some electronic control modules of the vehicles may be lost.

- After removing the control unit from the vehicle, do not turn the ignition on for any reason. If you turn the ignition on, diagnostic errors of communication failure with the removed module may be stored.

- Always read the file on the control unit and use this file to edit the modified file: files read from other control units, even if of the same model, may not be compatible with your vehicle.

- Always read the Operating Manual of the selected protocol before carrying out any operation, opening the programming page included, to be sure to follow all warnings and operating instructions for proper communication with the control unit.

- After programming the control unit, reconnecting it to the vehicle's electrical wiring and replacing the fuse and/or battery that may have been removed previously, it is advisable to turn the ignition on and wait at least two (2) minutes before starting the engine.

- After programming the control unit, to check for any stored DTC code that do not cause the engine warning light to come on, it is good practice to carry out again an in-depth diagnosis of the vehicle using an appropriate diagnostic tool. **If any DTC codes are detected, it is advisable to delete them so that the engine warning light will not come on later.**

- The use of KESS3 and its AlientechSuite software must always take place in safe conditions, i.e., with vehicle parked stationary and engine turned off. However, if an engine start is expressly required by AlientechSuite software, you must make sure the parking brake is properly engaged and the gear stick is in neutral position–or N (for automatic transmission.) If the vehicle is not equipped with a parking brake, make sure the vehicle cannot move and cause damage to people or things.

In particular, for the OBD mode:

- Unless otherwise instructed in the Operating Manual of the selected protocol, we recommend keeping the voltage of the vehicle's electrical system at its rated voltage, using an appropriate battery charger.

- Unless otherwise instructed in the Operating Manual of the selected protocol, all power-consuming systems must be turned off when reading or writing a file.

- Unless otherwise instructed in the Operating Manual of the selected protocol, when communicating with the control unit, and especially when writing a file, do not touch the vehicle (for example, do not open or close the doors or trunk, do not turn the hazard lights on etc.)

- When the *Reading* option is available for the selected protocol, always read the file on the control unit and use this file to edit the modified file: files read from other control units, even of the same model, may not be compatible with your vehicle. If the *Reading* option is not available, use the Virtual Reading service, request the original file through the appropriate procedure of Alientech Dashboard, or, if the control unit hardware is supported, read the original file in Boot or Bench mode.

- Carefully follow any instructions for turning the ignition on and off provided in the Operating Manual of the selected protocol.

- Carefully follow all on-screen instructions provided by the software for communicating with the vehicle.

- If the selected protocol requires the alignment of the gearstick (for manual transmission only), scrupulously follow the instructions provided in the Operating Manual to carry out this alignment. A gearstick not properly aligned may prevent the writing of a file on the control unit.

- If the selected protocol requires to read the injector codes, scrupulously follow the instructions provided in the Operating Manual and **always** carry out this operation before reading and/or writing the control unit, to avoid the loss of such codes, which often cannot be recovered.

In particular, for Bench and Boot modes:

- Most of KESS3 communication protocols necessitate opening the control unit: carry out this operation with great care and extreme caution, to avoid damaging the components mounted on the electronic board and, consequently, the control unit. **After opening the control unit and before proceeding with any operation, we strongly suggest you reconnect the control unit to the vehicle and start the engine, to make sure that the control unit is still in working order and has not been damaged during opening.**

- Make sure to connect correctly to the control unit by following the instructions provided in the Operating Manuals available in AlientechSuite software: incorrect connections and/or poorly made soldering can damage the control unit, often beyond repair.

- Before writing any file to the control unit for the purpose of modifying its content, it is advisable to always make a backup copy using the specific function in KESS3 programming menu.

- Restoring the EEPROM memory included in the original backup of the control unit data may cause a malfunction of the control unit if the vehicle has been started between the backup and its restoration.

- If the file of the EEPROM memory is rewritten, KESS3 does not perform the checksum correction on this file.

How to program a vehicle/control unit

When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

If AlientechSuite software proposes to use a protocol that is not available for the selected vehicle, you can select another vehicle associated with the proposed protocol to program your vehicle. After programming is complete, we suggest contacting the Technical Support Service through the Help Desk Portal, providing the complete data of your vehicle (i.e., make, model, version, displacement, horsepower, and engine code) so that it can be added to the vehicle list.

How to connect to a vehicle – OBD mode

The correct procedure for connecting to the vehicle to perform operations in OBD mode is as follows:

1. Run AlientechSuite software.
2. Plug in KESS3 to your computer using the supplied USB cable.
3. Select the desired vehicle and open the Operating Manual of the protocol.
4. Connect the proper cable to KESS3.
5. Connect the cable to the vehicle's diagnostic port or control unit.

> Never force the cable connector into the KESS3 port, you may cause damage not covered by the warranty. If cable and port do not connect easily, they may not match. Check for obstructions and make sure you are using the right cable and it is oriented correctly with the port of the tool.

How to disconnect from a vehicle – OBD mode

The correct procedure for disconnecting from the vehicle after performing operations in OBD mode is as follows:

1. Disconnect the cable from the vehicle's diagnostic port or control unit.
2. Unplug the cable from KESS3.

How to connect to a control unit – Bench/Boot mode

The correct procedure for connecting to a control unit in Bench or Boot mode is as follows:

1. Run AlientechSuite software.
2. Plug in KESS3 to your computer using the supplied USB cable.
3. Connect to the control unit with any soldering and/or accessories as provided in the Operating Manual.
4. Connect the necessary power source to KESS3, according to the instructions in the Operating Manual.
5. Connect the cable needed to power the control unit first to KESS3.
6. Then connect this cable to the ECU connector.

> Never force the cable or accessory connector into the KESS3 port, you may cause damage not covered by the warranty. If connector and port do not connect easily, they may not match. Check for obstructions and make sure you are using the right cable/accessory and it is oriented correctly with the port of the tool.

How to disconnect from a control unit – Bench/Boot modes

The correct procedure for disconnecting from a control unit in Bench or Boot mode is as follows:

1. Unplug the power source from KESS3.
2. Disconnect the cable needed to power the control unit first from the ECU connector.
3. Then disconnect this cable from KESS3.
4. Disconnect any other cable/accessory from KESS3.
5. Remove any soldering and/or accessories from the control unit, as instructed in the Operating Manual.

Programming in OBD mode

OBD mode allows programming a control unit by connecting directly to the vehicle diagnostic port, usually found inside the passenger compartment.

> When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

In case of communication problems with the control unit, before contacting the Technical Support Service:

- Make sure you have correctly connected the appropriate cable to vehicle diagnostic port or control unit connector.
- Make sure you have followed any warnings for proper communication with the control unit provided in the Operating Manual for the selected protocol.
- Refer to the Troubleshooting chapter.

Items in OBD mode programming menu

The number and type of items in the OBD mode programming menu depend on the communication protocol selected.

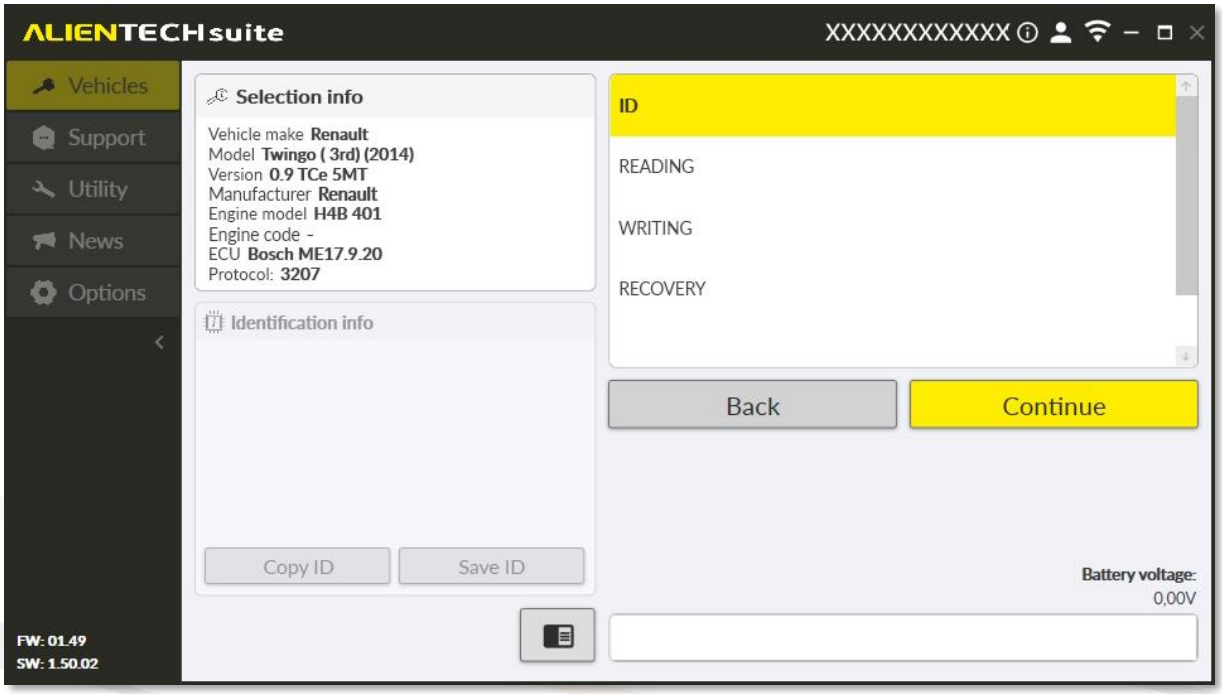


Figure 38: Example of OBD mode programming page – **KESS3 Master**

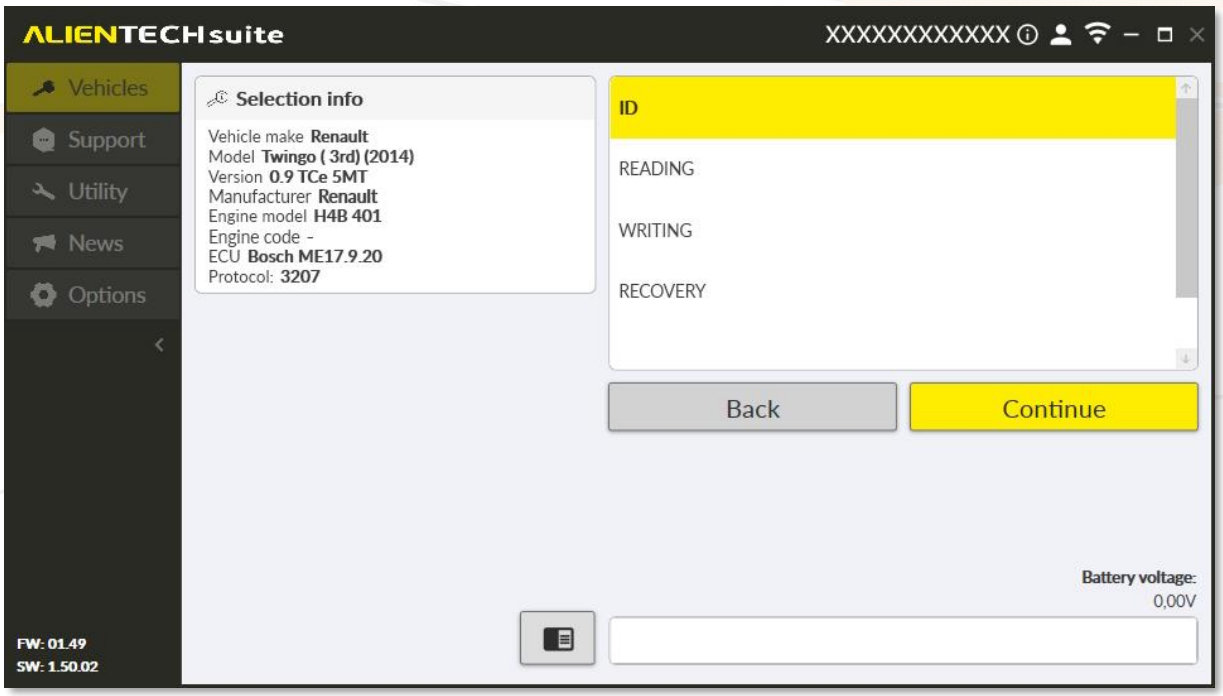


Figure 39: Example of OBD mode programming page – **KESS3 Slave**

The following table shows the main items in the OBD mode programming menu with a brief description alongside.

Option	Description
ID	To identify the control unit and/or vehicle you are working on and save the identification data in a text file (.txt format) to your computer. **Note:** If the control unit does not support the reading, when the Virtual Reading is available AlientechSuite software save–to the same folder where you saved the ID file–also the original file (for more info see the Virtual Reading service chapter.)
Reading	To read the file stocked on the control unit and save it to your computer. **Note**: This option is not available for those control units that do not support reading through the diagnostic port. When not available, make the ID and see the File management chapter.
Partial / Total Reading	For some protocols, you can choose between a partial reading (i.e., reading only the map zone containing the parameter management data) or a total reading of the file stocked in the control unit.
Writing	To write a file to the control unit, either an original or modified file. The file to be written must be available from your computer.
Partial / Total Writing	For some protocols, you can choose between a partial writing (i.e., writing only the map zone containing the parameter management data) or a total writing of a file to the control unit.
Recovery	To write a file to the control unit when the Writing procedure has not been successful.
Tool	To access any utility submenu.
Read Injector Codes	To read the injector code data and save them in a file to your computer**. It is important to always make this operation, where available, before reading and/or writing the vehicle.**
Write Injector Codes	To restore the injector codes after writing a file to the control unit, should it be necessary. You can use this option only if the injector codes were read and saved before reading the vehicle, as mentioned in the previous point.
Read EEPROM	To read all the data of the EEPROM memory and save them in a file to your computer.
Write EEPROM	To write the data of the EEPROM memory. The file containing the data to write must be available from your computer. **KESS3 does not perform the checksum correction when writing the EEPROM memory**.
Read Encoding	To read the data needed for the vehicle proper functioning and save them in a file to your computer. **It is important to always make this operation, where available, before reading and/or writing the vehicle**.
Write Encoding	To restore the data needed for the vehicle proper functioning, should it be necessary. **Use this function only and exclusively when instructed by Alientech Technical Support Service.**

Option	Description
Read Gear Sensor	To check the alignment of manual transmissions. Refer to the Operating Manual of the protocol with this programming option for instructions.
Adjust TPS	To adjust the *Throttle Position Sensor*. Refer to the Operating Manual of the protocol with this programming option for instructions.
Adjust Self-Adaptive Parameters	To adjust the self-adaptive parameters. Refer to the Operating Manual of the protocol with this programming option for instructions.
Backup	To make a backup copy of the control unit and save the backup file to your computer.
Restore	To restore the control unit to its initial state, if you have the backup file of the control unit and the file is available from your computer.
Erase Errors	To erase any DTC on the control unit. **It is important to make this operation whenever requested by the software when writing a file.**
Set Up	To access any settings submenu.
Pull Up	To choose the most appropriate pull-up resistance of the tool to carry out Reading/Writing through the K line. **It is usually set to 'Default': do not change it except when instructed by Alientech Technical Support Service.**
Speed	To select the Read/Write operation speed through the K line. **It is usually set to 'Maximum': do not change it except when instructed by Alientech Technical Support Service.**
Parameters	To select the Read/Write operation speed through the CAN line. **It is usually set to 'Setting 0": do not change it except when instructed by Alientech Technical Support Service.**

How to make ID, Reading, Writing, and Recovery

After selecting the vehicle and consulting the Operating Manual, as explained in the Searching and selecting a vehicle chapter, connect the appropriate cable and then select the desired programming option among those proposed.

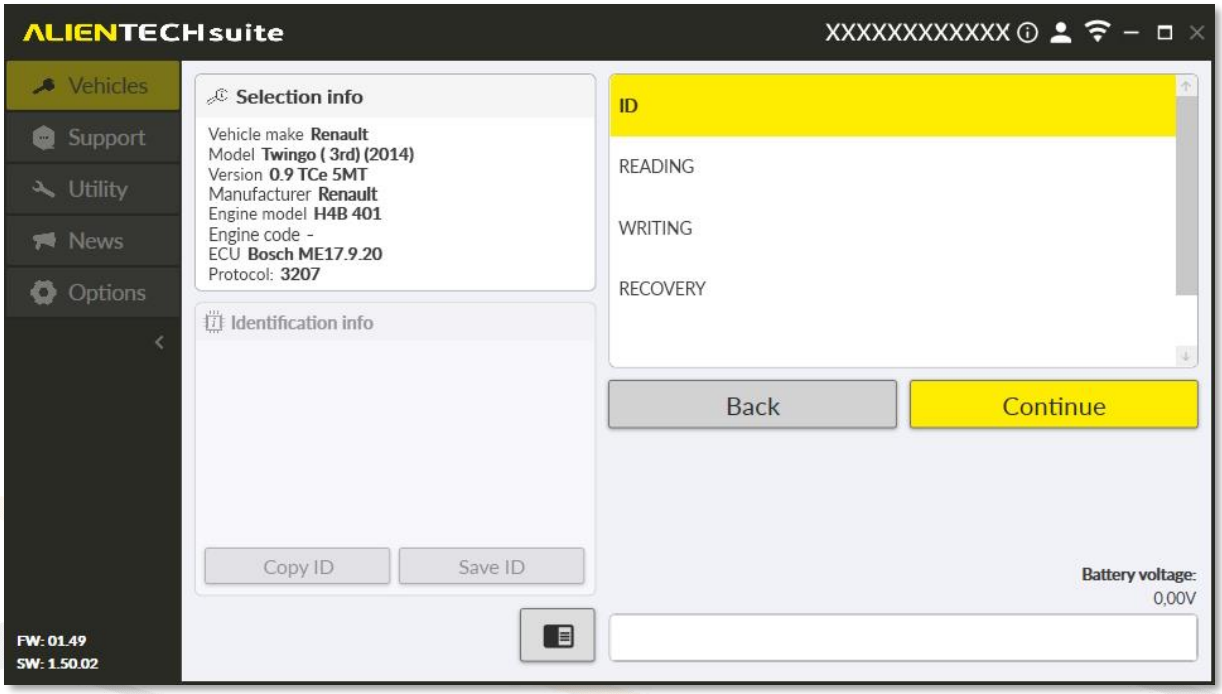


Figure 40: Example of OBD mode programming page – **KESS3 Master**

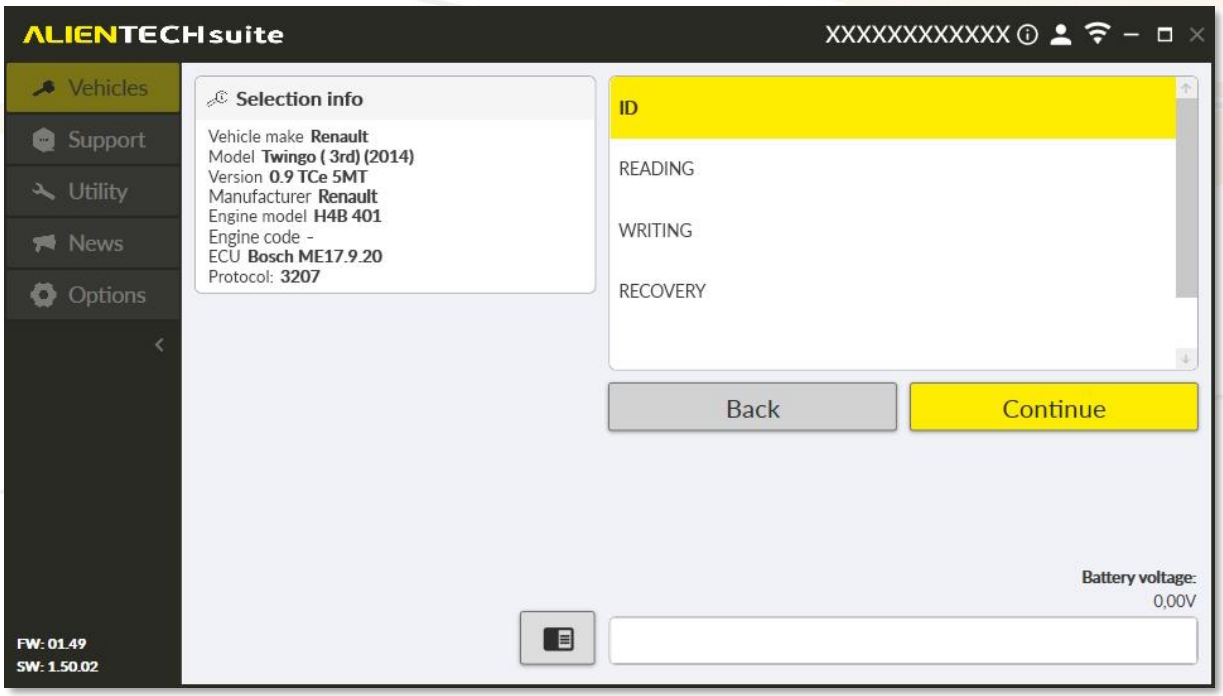


Figure 41: Example of OBD mode programming page – **KESS3 Slave**

The *Selection info* box shows the data of the selected vehicle.

The *Identification info* box will display the control unit information retrieved through the ID function (box available only for KESS3 Master tool).

In the box to the right are displayed the programming menu items available for the protocol and instructions provided by the software to correctly communicate with the control unit (e.g., it will be notified when the turn the ignition on or off.)

> When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

If you want to return to the communication mode selection page, click *Back*.

ID

Before making a Reading, it is advisable **to always make the ID of the control unit and save this ID file to your computer.** In addition to providing the identification data of the control unit, when the Virtual Reading is available, AlientechSuite will propose to save the original file of the vehicle–if available in the service archives–in the same directory where the ID file was saved. You will have the chance to choose the file name. For more information on this service, see the Virtual Reading service chapter.

Said ID file, moreover, is necessary to request assistance from the Technical Support Service through the Help Desk portal or request an original file through the appropriate procedure in Alientech Dashboard (service reserved for KESS3 Master tool owners).

Before making the ID, make sure to follow any instructions provided in the Operating Manual of the selected protocol to communicate properly with the control unit.

To make the ID of a control unit, select this option in the box on the right of the programming page, click *Continue* to confirm, and follow the instructions provided by AlientechSuite software.

Then click the <**Save ID**> button to save the identification file of the control unit and download the original file compatible with the vehicle, if the Virtual Reading service is available for the protocol in use and the file is available in the service's archives.

If you experience communication problems with the control unit during the ID, do not proceed with Reading/Writing: contact the Technical Support Service through the Help Desk portal.

Reading - Writing

To avoid the risk of data loss and communicate correctly with the control unit, before proceeding with Reading and Writing, follow the instructions provided in the Operating Manual of the selected protocol and carry out the operations therein mentioned, using the special functions that may be available for the protocol.

To make a Reading or Writing, select the desired option in the box on the right of the programming page, click *Continue* to confirm, and follow the instructions provided by AlientechSuite software.

It is strongly discouraged to write modified files created from original files not read from the control unit you wish to tune: the control unit may be damaged beyond any recovery. If the control unit does not support reading via the diagnosis port, you can:

- **Use the Virtual Reading, where available and if you meet the requirements.**
- **Read the original file in Bench or Boot mode, if the control unit is supported**.
- **Request the original file in the appropriate section of Alientech Dashboard (service reserved for KESS3 Master tool owners).**

Recovery

Sometimes the writing of a file may fail. In this case, the functioning of the vehicle may be compromised, and the control unit may enter a protection mode, which cannot be circumvented by the normal write operation.

The *Recovery* function can be used to re-establish communication with the vehicle and restore the file read from the control unit–or retry writing the modified file–thus recovering full vehicle functionality.

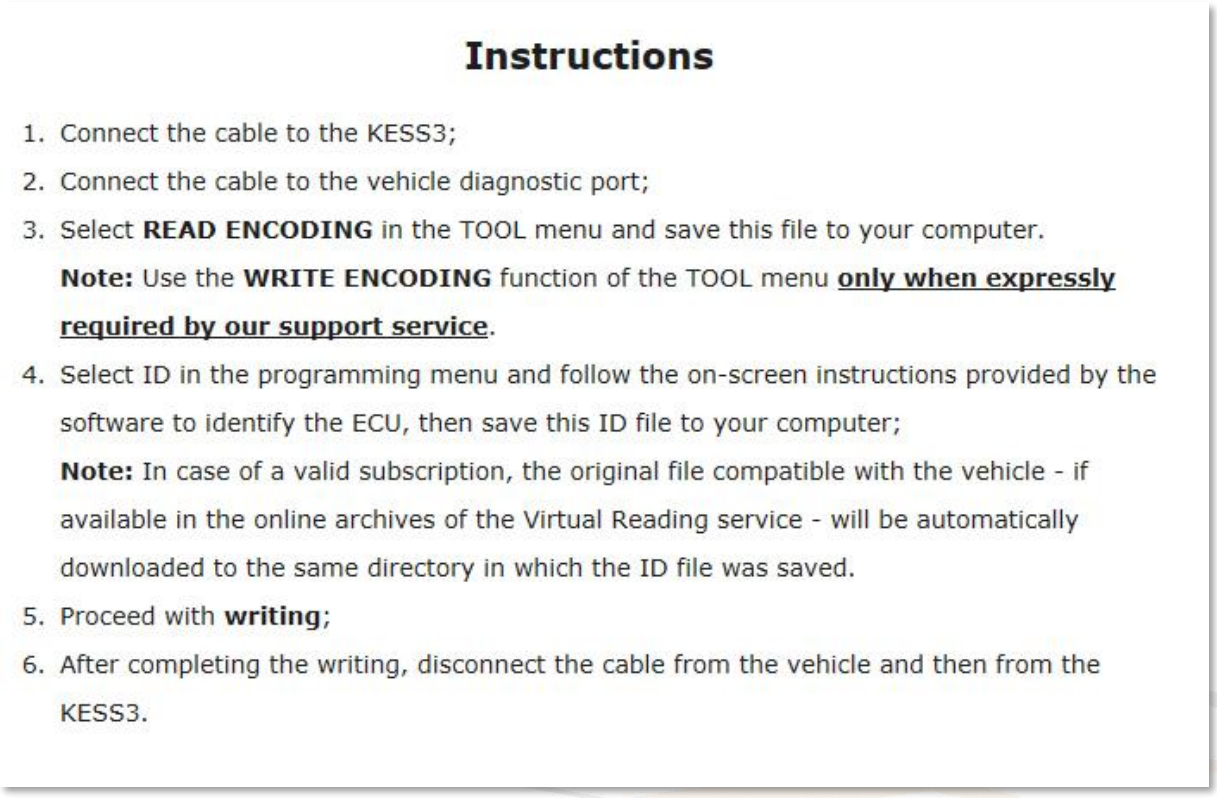
To make a recovery, select this option in the box on the right of the programming page, click *Continue* to confirm, and follow the instructions provided by AlientechSuite software.

You must perform the Recovery operation using the same tool used to make the unsuccessful write attempt.

Special functions

For protocols with special programming functions, refer to the relevant Operating Manual: explanations on the use of these Special Functions are provided in the *Warnings* and/or *Instructions* sections of that manual.

In the Operating Manual it is also indicated when it is necessary to use these special functions: depending on the type of protocol, it may be necessary to carry out these operations before any operation on the vehicle/ control unit, before Reading or at the end of Writing.



Instructions

1. Connect the cable to the KESS3;
2. Connect the cable to the vehicle diagnostic port;
3. Select **READ ENCODING** in the TOOL menu and save this file to your computer.
   Note: Use the **WRITE ENCODING** function of the TOOL menu **only when expressly required by our support service**.
4. Select ID in the programming menu and follow the on-screen instructions provided by the software to identify the ECU, then save this ID file to your computer;
   Note: In case of a valid subscription, the original file compatible with the vehicle - if available in the online archives of the Virtual Reading service - will be automatically downloaded to the same directory in which the ID file was saved.
5. Proceed with **writing**;
6. After completing the writing, disconnect the cable from the vehicle and then from the KESS3.

Figure 42: Example instructions for using Special Functions in an Operating Manual

To perform the special function provided for the protocol, select the appropriate submenu in the box on the right of the programming page, select the desired programming item, click *Continue* to confirm, and follow the instructions provided by AlientechSuite software.

Programming in Bench or Boot mode

Bench mode allows programming the control unit by removing it from the vehicle and connecting directly to the external connector, without the need to open the control unit.

Boot mode allows programming the control unit by removing it from the vehicle, opening it and connecting to the programming pads on the circuit board inside.

> When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

In case of communication problems with the control unit, before contacting the Technical Support Service:

- Make sure you have correctly connected the appropriate cable to the control unit connector.
- Make sure you have made correct soldering, where required, without creating short circuits.
- Check the connections made, making sure you have used the right accessories and have positioned them correctly as instructed in the Operating Manual of the selected protocol.

- Refer to the Troubleshooting chapter.

Items in Bench/Boot mode programming menu

The number and type of items in the Bench and Boot mode programming menu depend on the communication protocol selected and the type of tool connected.

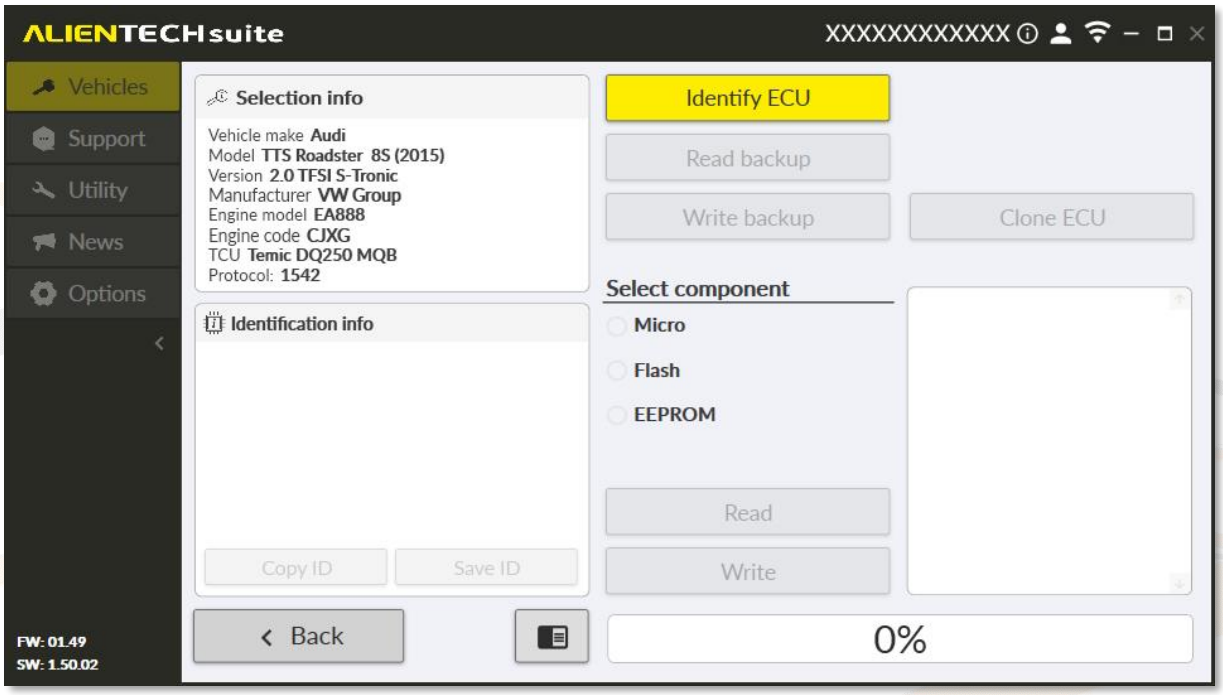


Figure 43: Example of Bench and Boot mode programming page – **KESS3 Master**

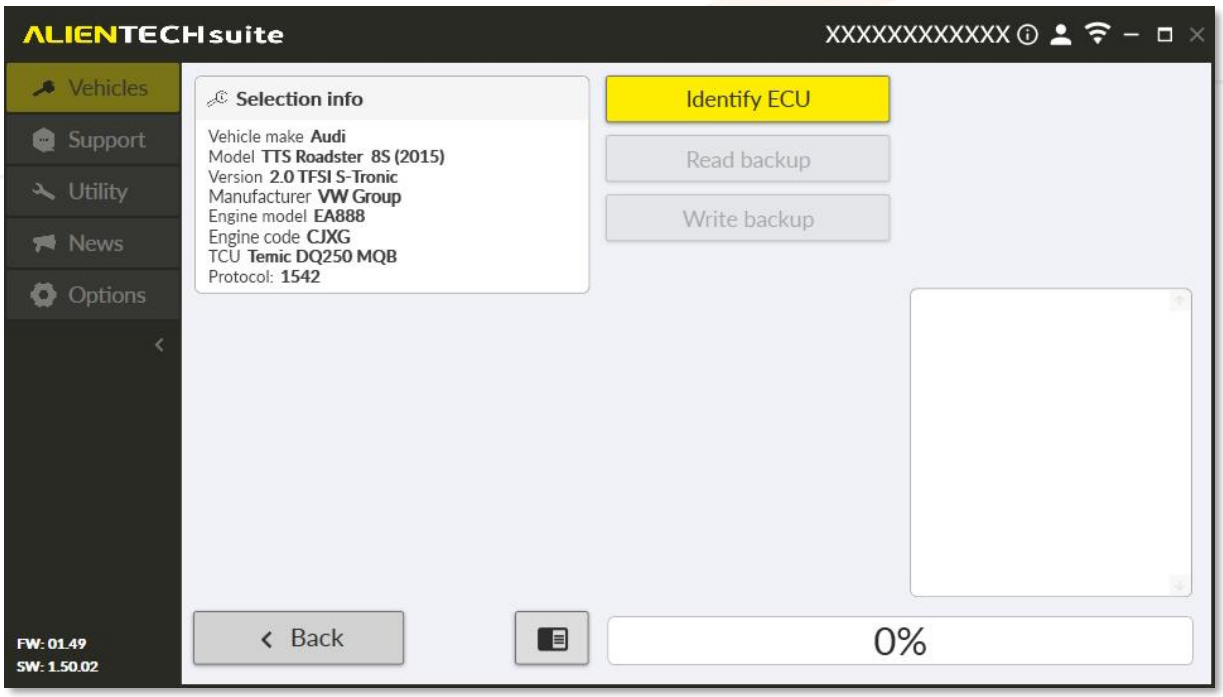


Figure 44: Example of Bench and Boot mode programming page – **KESS3 Slave**

The following table shows the main items in the Bench and Boot mode programming menu with a brief description alongside.

Option	Description
Identify ECU	To identify the control unit you are working on and recognize its protection, so that the protocol can communicate properly.
Read backup	To perform a full data backup of all components mounted on the control unit.
Write backup	The rewrite the backup file to the control unit.
Read	To read the file of a single component of the control unit. **Function available only for Master tools.**
Write	To write the file of a single component to the control unit. **Function available only for Master tools.**
ECU Patch	To enable the writing of modified files in OBD mode.
Read Password	To retrieve the protection password of the control unit and enable its communication in Boot mode.
Clone ECU	To copy data from a damaged control unit to a working one, with the same model and hardware number. **Function available only for Master tool** (valid subscription is required for some control unit models).

Programming with KESS3 Master in Bench/Boot mode

After selecting the vehicle and consulting the Operating Manual, as explained in the Searching and selecting a vehicle chapter, connect to the control unit and then select the desired programming option among those proposed.

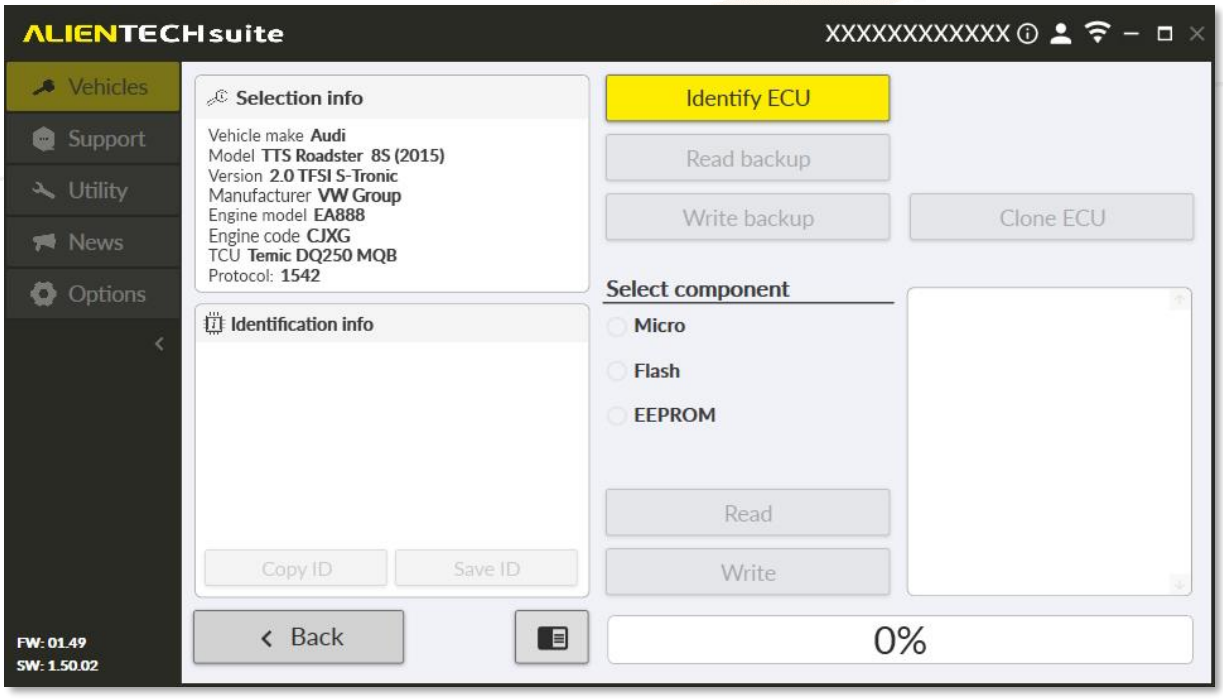


Figure 45: Example of Bench and Boot mode programming page – **KESS3 Master**

The *Selection info* box shows the data of the selected vehicle.

The *Identification info* box will display the control unit information retrieved through the ID function.

In the box to the right are displayed the programming menu items available for the protocol and the check boxes for the single components of the control unit-Micro, Flash, and EEPROM-with specified in which component the maps, i.e., engine and/or automatic transmission management data, are stored.

If the management parameters are stored in several components, an additional checkbox, called “Maps”, will be available and selectable.

If a component is not present on the control unit or it is not possible to read and/or write it, it will not be possible to select it.

This box will also display any instructions provided by the software and status messages about operations performed by the tool.

> When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

If you want to return to the communication mode selection page, click *Back*.

Identify ECU

To make the ID of a control unit, select the <**Identify ECU**> button and follow any instructions provided by AlientechSuite software.

Then click the <**Save ID**> button to save the identification data of the control unit in a text file in .txt format to your computer. This file is necessary to request assistance from the Technical Support Service through the Help Desk portal or request an original file through the appropriate procedure in Alientech Dashboard.

If you experience communication problems with the control unit during the ID, do not proceed with Read/Write backup operations: contact the Technical Support Service through the Help Desk portal.

Read Backup

Before writing any file to the control unit, we strongly recommend you always make a backup copy.

To make a full backup of the control unit click the <**Read backup**> button and save the file to your computer.

After saving the backup file, AlientechSuite will propose to save separately the files of each single component present on the control unit, so that they are immediately available for modification without needing a further reading.

- If the management parameters are stored in several components, at the end of the backup you will have to mark the "Maps" checkbox and select *Read*, then save this read file to your computer so that you can use it to correctly modify the management parameters of the control unit.
- The backup file read by a Master tool is compressed and encrypted, to be used only to restore the control unit to its initial state. Therefore, this file cannot be used to edit modified files: to modify the control unit, you need to use the individual component files saved at the end of the backup or obtained directly through the *Read* function.
- However, you can manage the backup files in the KESS3 Backup Management section of Alientech Dashboard. **Access to this service is subject to the purchase of the corresponding activation.**

Reading

If you already have the backup file of the control unit but still want to read again only the file of a single component, simply select the component to be read, click the <**Read**> button, and save the file of the selected component to your computer.

Writing

It is strongly discouraged to write to the vehicle modified files made from original files not read from the control unit you wish to tune: the control unit may be damaged beyond any recovery.

If you want to restore the control unit to its initial state, simply rewrite the file of the component that has been modified. For example, if only the Micro file has been modified, to restore the control unit to its initial state, it is enough to rewrite the file of this component.

To write a single component file, select the component to be written, click the <**Write**> button, and select the file on your computer.

Writing the EEPROM memory may cause a malfunction of the control unit if the vehicle were to be started between the first reading of this component and its writing.

Write Backup

If, after writing a modified file, problems occur on the vehicle it is possible to restore the control unit to the state it was at the time it was backed up.

The restore of the EEPROM memory included in the original backup of the control unit data may cause a malfunction of the control unit if the vehicle were to be started between the backup and its restoration.

For this reason, it is advisable to restore only the file of the modified component, as indicated in the Writing chapter.

To rewrite the full backup of the control unit, click the <**Write Backup**> button and select the file on your computer.

Special functions

Special programming features are available for some protocols, such as:

- **Read Password.** Refer to the Operating Manual of the protocol in which this feature is available to find the appropriate instructions: you may need to use this function before removing the control unit from the vehicle or before opening it.
- **ECU Patch.** Follow the instructions provided on the screen by the software.
- **Clone ECU.** Connect to the control unit as instructed in the Operating Manual of the protocol in and follow the instructions provided in the wizard. A valid subscription is required for some models of Bosch ECUs of the VAG group.

Programming with KESS3 Slave in Bench/Boot mode

After selecting the vehicle and consulting the Operating Manual, as explained in the Searching and selecting a vehicle chapter, connect to the control unit and then select the desired programming option among those proposed.

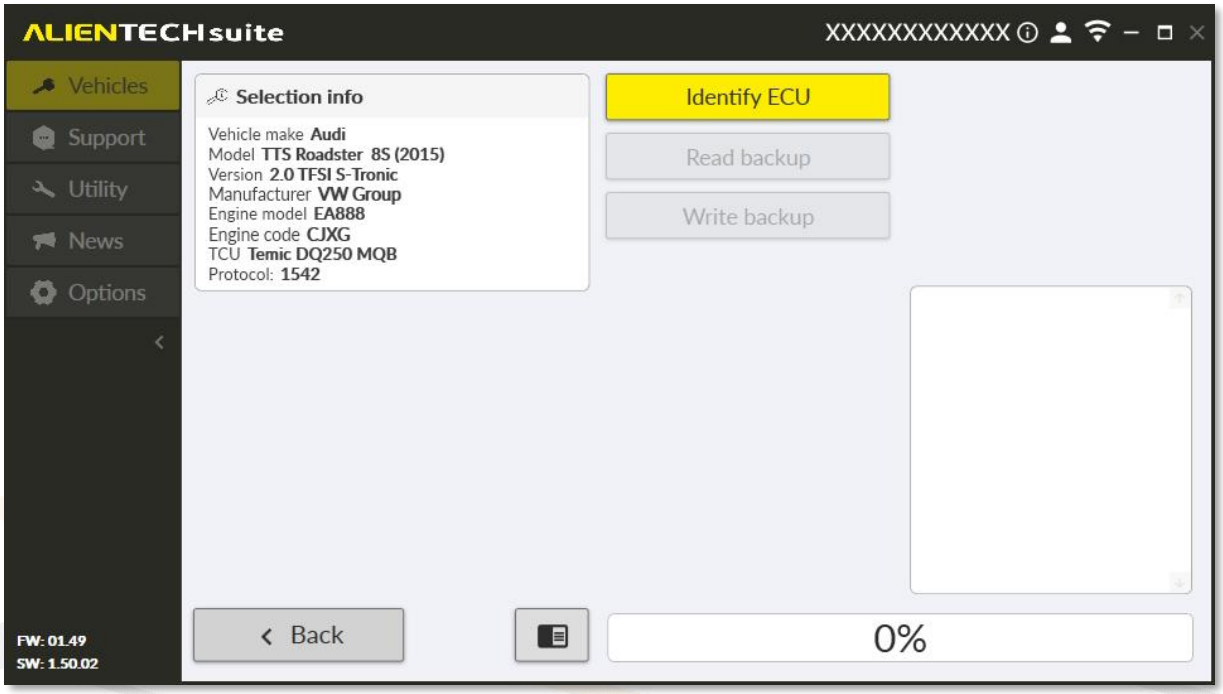


Figure 46: Example of Bench and Boot mode programming page – **KESS3 Slave**

The *Selection info* box shows the data of the selected vehicle.

In the box to the right are displayed the programming menu items available for the protocol.

This box will also display any instructions provided by the software and status messages about operations performed by the tool.

> When communicating with the control unit, AlientechSuite automatically performs its recognition and may propose to use a different protocol than the one selected, which best suits the control unit protection.

If you want to return to the communication mode selection page, click *Back*.

Identify ECU

To make the ID of a control unit, select the <**Identify ECU**> button and follow any instructions provided by AlientechSuite software.

Then click the <**Save ID**> button to save the identification data of the control unit in a text file in .txt format to your computer. This file is necessary to request assistance from the Technical Support Service through the Help Desk portal.

If you experience communication problems with the control unit during the ID, do not proceed with Read/Write backup operations: contact the Technical Support Service through the Help Desk portal.

Read Backup

To make a full backup of the control unit click the <**Read backup**> button and save the file to your computer.

Write Backup

Use this function when you want to:

- Write the backup file with the control unit management parameters modified by your Master.
- Restore a control unit to the state it was at the time it was backed up.

The restore of the EEPROM memory included in the original backup of the control unit data may cause a malfunction of the control unit if the vehicle were to be started between the backup and its restoration.

To rewrite the full backup of the control unit, click the <**Write Backup**> button and select the file on your computer.

Special functions

Special programming features are available for some protocols, such as:

- **Read Password.** Refer to the Operating Manual of the protocol in which this feature is available to find the appropriate instructions: you may need to use this function before removing the control unit from the vehicle or before opening it.
- **ECU Patch.** Follow the instructions provided on the screen by the software.

File management

Original files

Some engine control units do not support reading through the diagnostic port. If you want to reprogram these control unit in OBD mode, you need to obtain the original file in other ways:

- Through the *Virtual Reading* service, where available and if you meet the requirements.
- Through the *Original Files* service in Alientech Dashboard. This service is reserved for KESS3 Master owners with a valid subscription: Slave users must therefore send the ID file to their Master.
- Reading the original file in Bench or Boot mode, if the control unit is supported.

Virtual Reading service

The Virtual Reading service is available for some of the OBD mode protocols with which it is not possible to read the control unit via the diagnostic port: this service automatically downloads, under certain conditions, the original file compatible with the vehicle you are working on.

You can check if Virtual Reading is available for the protocol selected:

- In the communication mode selection page.
- Within the Operating Manual of the protocol, in the *Standard Functions* table.

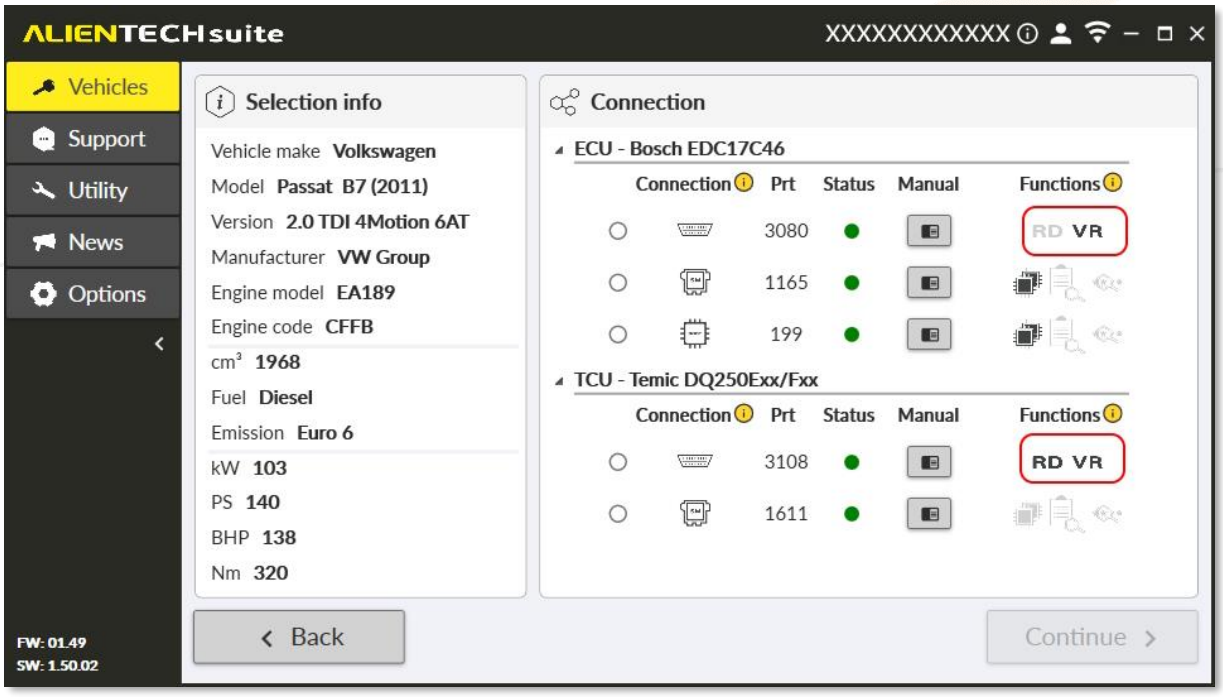
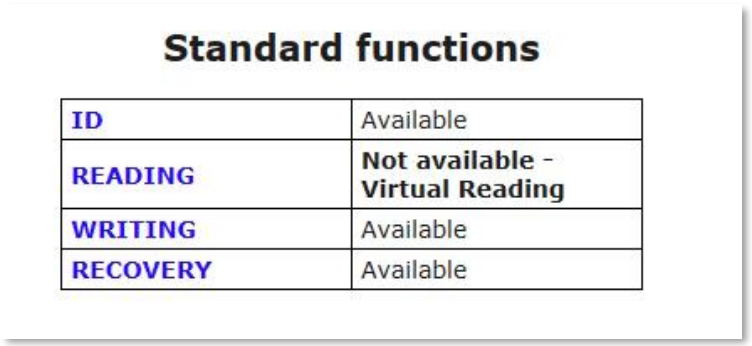


Figure 47: Example of *Virtual Reading* service available in the communication mode selection page



Standard functions

ID	Available
READING	**Not available - Virtual Reading**
WRITING	Available
RECOVERY	Available

Figure 48: Example of *Virtual Reading* service available in an OBD mode Operating Manual

To use the Virtual Reading service, you need to:

- Have a valid subscription.
- Make an ID of the control unit and save the ID file to your computer.

If the original file is available in the archives of the Virtual Reading service, AlientechSuite proposes to save the original file in the same folder where you saved the ID file, giving you the possibility to choose the file name.

If the Virtual Reading service is available for the selected protocol but the original file cannot be found in the service archives, AlientechSuite displays an error message. In this case you can:

- Read the original file in Bench or Boot mode, if the control unit is supported.
- Request the original file in the appropriate section of Alientech Dashboard. This service is reserved for KESS3 Master owners with a valid subscription: Slave users must therefore send the ID file to their Master.

You cannot use original files downloaded through the Virtual Reading service with your KESS3 Master to edit modified files for your Slave users: you must always decode the ID file received from the Slave user.

If your Slave user does not have the necessary conditions to use the Virtual Reading service or the original file is not available in the service archives, the Master user must request the original file using the appropriate Alientech Dashboard procedure as explained in the following chapter.

Original file request service

If you need to request an original file, you can use the service made available through the Alientech Dashboard.

The original file request service in Alientech Dashboard is reserved for KESS3 Master owners with a valid subscription.

For more information on how to request an original file, refer the specific user guide accessible from the "User Guides" section of Alientech Dashboard.

Encoding/Decoding Slave files

KESS3 Master owners can use the service provided by Alientech srl through the Encoding Portal to decode and encode files received from Slave users associated with their organization.

- The service to decode / encode Slave files through the Encoding Portal is provided free of charge to all owners of KESS3 Master tools who have at least one Slave tool associated.
- You can decode and encode only files coming from Slave tools associated with your organization, you cannot manage files from Slave tools associated with other organizations.

For more information on how to use the Encoding Portal, refer the specific user guide accessible from the "User Guides" section of Alientech Dashboard.

KESS3 backup management

KESS3 Master owners can use the service provided by Alientech srl through the Dashboard to manage backup files.

- Access to the KESS3 Backup Management section is subject to the purchase of the corresponding activation.
- It is possible to manage files read by either KESS3 Master or Slave tools.
- You can manage only files coming from KESS3 tools associated with your organization, you cannot manage files from tools associated with other organizations.

For more information on how to use the KESS3 Backup Management service, refer the specific user guide accessible from the "User Guides" section of Alientech Dashboard.

Technical support

Troubleshooting

If you are experiencing difficulties in operating your tool, before contacting Technical Support Service, read this section and try to solve the problem by following the recommended procedures.

Problem	Solution
AlientechSuite software does not recognize the tool	➢ Check that the green LED "DATA" on the tool is on. If the green LED "DATA" on the tool is off: • Check that the tool is correctly connected to your computer with the supplied USB cable and the USB port of your computer is not damaged. • Make sure the USB cable is not damaged and, if possible, try with another USB cable. **Use the USB cable supplied in the basic kit to connect the tool to the computer. The use of extension cables or other USB cables is not recommended. If you need to use a USB cable other than the one supplied in the basic kit, make sure the cable is shielded. USB cables not supplied by Alientech srl may cause problems. DO NOT use USB hubs, but connect the supplied USB cable directly to the USB port on your computer.** If the problem persists, contact the Technical Support Service through the Help Desk portal.
AlientechSuite software does not start	➢ Make sure your antivirus does not detect AlientechSuite software as a threat and, if necessary, add the [C:\AlientechSuite] folder to the exceptions. ➢ Make sure your firewall does not block AlientechSuite software execution. ➢ Check the user permissions of your computer and make sure to run AlientechSuite software as an administrator. If the problem persists, contact the Technical Support Service through the Help Desk portal.
How to check the tool serial number	➢ The serial number can be found on the barcode label affixed to the underside of the tool. ➢ As an alternative, with the tool connected to your computer, start AlientechSuite software: the serial number is shown in the upper right corner.

Problem	Solution
How to get the LOG file	➢ The LOG file with all operations performed by the tool is automatically sent to Alientech servers, so you no longer need to download it and send it to the Technical Support Service in case of problems.
The Operating Manuals are not displayed correctly	➢ Check that your operating system is compatible with AlientechSuite software (see the Technical specification chapter.) ➢ Make sure your Microsoft Edge browser is updated to the latest version released. If the problem persists, contact the Technical Support Service through the Help Desk portal.
Some protocols are not active	➢ Update AlientechSuite with the tool connected to your computer. ➢ If you have a subscription, check that it is not expired and that the protocol belongs to the protocol group purchased. ➢ If you do not have a subscription, it is expired or the protocol does not belong to the protocol group purchased for the tool, contact Alientech Sales Department or your dealer. ➢ If AlientechSuite software is updated, your subscription is valid and the protocol belongs to the protocol group purchased, close AlientechSuite, disconnect all cables and try again. If the problem persists, contact the Technical Support Service through the Help Desk portal.

Problem	Solution
The tool cannot read and/or write	➢ Update AlientechSuite with the tool connected to your computer. ➢ Check that the green LED "DATA" on the tool is on. If the green LED "DATA" on the tool is off: • Check that the tool is correctly connected to your computer with the supplied USB cable and that the USB port of your computer is not damaged. • Make sure the USB cable is not damaged and, if possible, try with another USB cable. • If the USB cable is properly connected and not damaged, contact the Technical Support Service through the Help Desk portal. ➢ Make sure to use the correct cable between KESS3 and vehicle or control unit-if working in OBD mode-or use the appropriate accessories for the selected control unit-if working in Bench or Boot mode. ➢ Make sure the necessary cables or accessories are connected properly. ➢ Make sure the necessary cables and accessories are not damaged. ➢ Make sure you have correctly supplied power to KESS3, if necessary. ➢ Make sure you have correctly supplied power to the control unit, if necessary. ➢ Make sure you have selected the correct protocol for the vehicle or control unit to be programmed. ➢ Make sure the voltage of the battery or, if necessary, the power supply is adequate. ➢ Make sure the blue and/or orange LEDs on the tool are lit when communication with the control unit is being attempted. If the problem persists, contact the Technical Support Service through the Help Desk portal, providing a screenshot of the displayed error and a detailed description of the operations performed.
"Unrecognized ECU" error in OBD mode	➢ Check if another protocol is proposed to be used instead of the one selected. ➢ Update AlientechSuite with the tool connected to your computer. If the problem persists, send the read file and all vehicle data to the Technical Support Service through the Help Desk portal, to request a check on the original file.

Problem	Solution
"REC file not found" error during a Recovery procedure in OBD mode	➢ Be sure to make the Recovery using the same tool that caused the problem on the vehicle.
"Error in searching for the .ORI file in Virtual Reading (xxx)" message in OBD mode	➢ Close AlientechSuite software and try again. If the problem persists, you need to request the original file through the Alientech Dashboard, as explained in the Original file request service chapter.
"Make ID with protocol xxxx to download the .ORI file" message in OBD mode	➢ You have selected a protocol that is not suitable for the control unit of your vehicle. Try again using the protocol suggested by the software. If the problem persists, contact the Technical Support Service through the Help Desk portal.
"Your subscription expired on xx/xx/xxxx. Renew it to see if the original file is available via Virtual Reading" or "Your subscription expired on xx/xx/xxxx. Renew it and make ID with protocol xxxx to download the .ORI file" error messages in OBD mode	➢ Renew the subscription and try again, in case using the protocol suggested by the software. If the problem persists, contact the Technical Support Service through the Help Desk portal.
"xxx-0005-8000-xxx" error messages	➢ Close AlientechSuite software, disconnect all cables from the tool, and try again. If the problem persists, contact the Technical Support Service through the Help Desk portal.
Errors when identifying the control unit in Bench or Boot mode	➢ If during the identification of the control unit its data are not displayed, make a backup of the control unit anyway and contact the Technical Support Service through the Help Desk portal, providing: • Backup file of the control unit • Full data of the vehicle • Photo of the control unit label • Photo of the control unit cover • Photo of the control unit printed circuit ➢ If the message "*ECU communication error*" is displayed during the identification, it may be due to connection problems with the control unit: check the connections made. If the problem persists, contact the Technical Support Service through the Help Desk portal.

Problem	Solution
"ECU communication error" message in Bench or Boot mode	➢ Make sure you have properly connected the right cable to the control unit connector. ➢ Make sure you have made correct soldering, where required, without creating short circuits. ➢ Check the connections made, making sure you are using the right accessories and that they have been positioned correctly as instructed in the Operating Manual of the selected protocol. ➢ When writing a file, make sure you have selected the right function for the type of writing you need to carry out. For example, when writing the file of a single component, make sure you have selected *Write* and not *Write Backup*. ➢ When writing a backup file, make sure you are writing the file with the same tool that has read it. If the problem persists, contact the Technical Support Service through the Help Desk portal.
"Unrecognized ECU" error in Bench or Boot mode	➢ Make a backup of the control unit anyway and send it to the Technical Support Service through the Help Desk portal to update the recognition in the protocol file.
"Micro protection removal failed" error while reading a file in Boot mode	➢ Make sure you have correctly recovered the password by following the instructions provided in the Operating Manual of the selected protocol. If the problem persists, contact the Technical Support Service through the Help Desk portal.
"Univocal microcontroller ID read error" message in Boot mode	➢ Make sure you have correctly positioned the SMD mini grabber probe under the Micro, gripping only the ball indicated in the Operating Manual, without creating short circuits with other neighboring pads. If the problem persists, contact the Technical Support Service through the Help Desk portal.

Technical Support Service

Alientech srl provides its customers with a Technical Support Service through the Help Desk portal.

Contact language: Italian, English
Official website: https://databank.alientech.to/ticket/
Working hours: From Monday to Friday, from 8:30AM to 12:30PM CET and from 2:00PM to 6:00PM CET/CEST

Any closures for holidays will be communicated through appropriate notice on the Help Desk portal.

For more information on how to submit a technical support request, refer to the specific user guide accessible from the "User Guides" section of Alientech Dashboard.

Repair or replacement of a product with RMA

Refer any required servicing of product to Alientech srl only.

> Alientech srl warrants the tool hardware and its accessories against conformity defects, or defects that are otherwise directly attributable to Alientech srl, for a period of 24 (twenty-four) months from the activation date of the tool, provided that the tool is used in accordance with the instructions contained in this User Guide, in the Operating Manuals integrated in AlientechSuite software, or in any other technical documentation provided by Alientech srl.

In case of malfunction, damage or breakage of the tool or one of its accessories, **always** contact the Technical Support Service through the Help Desk portal. Technical Support Service operators will ask questions to better diagnose the problem occurred and, if necessary, will give authorization for the return of the tool by providing you with an RMA form (Return Merchandise Authorization), along with the necessary directions for sending the tool for repair.

You must thoroughly fill in the RMA form and must always include it in the package with the tool. In addition, remember that the tool must be returned in its case and complete with all its accessories.

> Alientech srl reserves the right not to accept, inspect and/or repair tools not accompanied by an RMA form.

Further information

Useful links

To get more information about security, software, and services offered by Alientech srl, you can refer to the following resources.

For information on	What to do
Alientech Dashboard user guide	Download it from this link: http://www.alientech.to/xnote/Alientech_Dashboard_User_Guide.pdf
Help Desk user guide	See the "User Guides" section of Alientech Dashboard
Original file request user guide	
Encoding Portal user guide	
KESS3 backup management user guide	
AlientechSuite software license	See the webpage: https://www.alientech-tools.com/legal/
KESS3 Terms of use	
Hardware warranty	
Technical support service terms and conditions	
RMA terms and conditions	
Original file request service terms and conditions	
Encoding portal terms and conditions	
KESS3 backup management terms and conditions	
Alientech Dashboard terms and conditions	
Privacy notice	
Latest news on Alientech world	See the webpage: https://www.alientech-tools.com/news/latest/
Alientech Academy	See the webpage: https://www.alientech-tools.com/academy/
Alientech authorized dealers	See the webpage: https://www.alientech-tools.com/dealers/

Technical specification

Interface	DB25 connector
	Tyco 12 connector
	USB 2.0 type B connector
Compatible operating systems	32-bit or 64-bit editions of Windows 10 and Windows 11
Minimum system requirements	RAM: 1 gigabyte (GB) for 32-bit OS or 2 gigabytes (GB) for 64-bit OS
	Processor: 1 gigahertz (GHz) or faster
	Hard disk space: 200 MB
	1 USB port
	Microsoft® Edge® updated to the latest version available
	Active Internet connection
Optional system requirements	Bluetooth® V4.2 BR/EDR and Bluetooth® LE
	Wi-Fi 802.11b/g/n
Tool weight	Approx 400 g (14,11 oz)
Tool external dimensions	Approx 19,7x15x3H cm (7.76x5.91x1.18H in)
Suitcase weight (empty)	Approx 2,75 kg (6.06 lb)
Suitcase weight (with tool and accessories)	Approx 3,9 kg (8.60 lb)
Suitcase external dimensions	Approx 57x14,5x42H cm (22.44x5.71x16.54H in)

Alientech srl does not guarantee the correct functioning of AlientechSuite software on non-compatible operating systems not listed in the table above.

Power supply

AC input	100-240 V, 50/60 Hz
DC output	12.0 V, 4.2 A ⊖—●—⊕
Weight	Approx. 220 g (7,05 oz)
External dimensions	Approx 14,3×7×6H cm

Environmental conditions

Operating temperature range	-10°C/+50°C (14°F/122°F)
Storage temperature range	-20°C/+70°C (-4°F/158°F)
Maximum operating humidity	60%
Operating altitude	max. 5.000 m (16,400 ft)
Degree of waterproofing	IP X0