A·B·R·I·T·E·S
automotive solutions

ABRITES DIAGNOSTICS AVDI COMMON

User manual
version 3.7

Important notes

The Abrites software and hardware products are developed, designed and manufactured by Abrites Ltd. During the production process we comply to all safety and quality regulations and standards, aiming at highest production quality. The Abrites hardware and software products are designed to build a coherent ecosystem, which effectively solves a wide range of vehicle-related tasks, such as:

Diagnostic scanning;
Key programming;
Module replacement,
ECU programming;
Configuration and coding.

All software and hardware products by Abrites Ltd. are copyrighted. Permission is granted to copy Abrites software files for your own back-up purposes only. Should you wish to copy this manual or parts of it, you are granted permission only in case it is used with Abrites products, has "Abrites Ltd." written on all copies, and is used for actions that comply to respective local law and regulations.

Warranty

You, as a purchaser of Abrites hardware products, are entitled of a two-year warranty. If the hardware product you have purchased has been properly connected, and used according to its respective instructions, it should function correctly. In case the product does not function as expected, you are able to claim warranty within the stated terms. Abrites Ltd. is entitled to require evidence of the defect or malfunction, upon which the decision to repair or substitute the product shall be made.

There are certain conditions, upon which the warranty cannot be applied. The warranty shall not apply to damages and defects caused by natural disaster, misuse, improper use, unusual use, negligence, failure to observe the instructions for use issued by Abrites, modifications of the device, repair works performed by unauthorized persons. For example, when the damage of the hardware has occurred due to incompatible electricity supply, mechanical or water damage, as well as fire, flood or thunder storm, the warranty does not apply.

Each warranty claim is inspected individually by our team and the decision is based upon thorough case consideration.

Read the full hardware warranty terms on our website.

Copyright information

Copyright:

All material herein is Copyrighted ©2005-2021 Abrites, Ltd.
Abrites software, hardware, and firmware are also copyrighted
Users are given permission to copy any part of this manual provided that the copy is used with Abrites products and the "Copyright © Abrites, Ltd." statement remains on all copies
"Abrites" as used in this manual synonymous with "Abrites, Ltd." And all it's affiliates
The "Abrites" logo is a registered trademark of Abrites, Ltd.

Notices:

The information contained in this document is subject to change without prior notice. Abrites shall not be held liable for technical/editorial errors, or omissions herein.
Warranties for Abrites products and services are set forth in the express written warranty statements accompanying the product. Nothing herein should be construed as constituting any additional warranty.
Abrites assumes no responsibility for any damage resulting from the use, misuse, or negligent use of the hardware or any software application.

Safety information

The Abrites products are to be used by trained and experienced users in diagnostics and reprogramming of vehicles and equipment. The user is assumed to have a good understanding of vehicle electronic systems, as well as potential hazards while working around vehicles. There are numerous safety situations that cannot be foreseen, thus we recommend that the user read and follow all safety messages in the available manual, on all equipment they use, including vehicle manuals, as well as internal shop documents and operating procedures.

Some important points:
Block all wheels of the vehicle when testing. Be cautious when working around electricity.
Do not ignore the risk of shock from vehicle and building-level voltages.
Do not smoke, or allow sparks/flame near any part of the vehicle fuel system or batteries.
Always work in an adequately ventilated area, vehicle exhaust fumes should be directed towards the exit of the shop.
Do not use this product where fuel, fuel vapours, or other combustibles could ignite.

In case any technical difficulties occur, please contact the
Abrites Support Team by email at [support@abrites.com.](mailto:support@abrites.com)

Table of contents

Table of contents

1. Introduction

Congratulations on choosing our product!

AVDI will allow you to use your Windows based PC as a powerful diagnostic tool for cars, trucks, bikes, marine equipment and recreational products. AVDI is an interface produced by Abrites Ltd. intended for interface between a PC and electronic control units. AVDI should be used with ABRITES software pro-duced by Abrites Ltd. ABRITES is a trade mark of Abrites Ltd.

1.1 Scope of the manual

This document describes the software and hardware installation of your AVDI diagnostics interface.
The document is applicable for the interfaces numbered 17xxxx (or 16xxxx) where xxxx is a hexadecimal number between 0000 and FFFF.

1.2 System requirements
Minimum system requirements – Windows 10 or above

1.3 Your AVDI package

The basic package of AVDI interface contains:

1. **i18 AVDI - Abrites Vehicle Diagnostics Interface**

2. **CB106 - Abrites OBDII cable (SAE J1962)**

Used to connect the AVDI to the vehicle

3. **CB104 - USB A-B Cable**

Used to connect the AVDI to the PC

2. Getting Started

Software for your AVDI interface can be delivered by email. Please make sure that you follow the steps described below.

Software is represented by windows executable files named.

1.   "SetupInterface_17xxxx.exe"
(or 16xxxx.exe)

SetupInterface_1
7xxxx.exe

SetupInterface_C
ommon.exe

2.   "SetupInterface_Common.exe" and three more downloadable parts of the common file:
"SetupInterface_Common-1.bin"
"SetupInterface_Common-2.bin"

3.   "SetupInterface_17xxxx_ PASSTHRU.exe" (or 16xxxx) where 17xxxx (or 16xxxx) is your interface identification number

2.1 Software installation steps

Please follow the bellow given instructions when installing the software for your AVDI interface.

Important! All executable files (.exe) mentioned above must be executed consequently(1,2,3) for the installation to be complete.
Otherwise the software might not function as expected!

**Step 1.** Download all the parts of the common setup files in one folder.

Start the executable file "SetupInterface_Common.exe" and follow the on-screen instructions.

SetupInterface_Common.exe
SetupInterface_Common-1.bin
SetupInterface_Common-2.bin
SetupInterface_Common-3.bin

IMPORTANT! Make sure that they are all downloaded in the SAME folder and their names are EXACTLY as they are named on the image above. If you have "SetupInterface_Common-1 (1) or (2)", as Windows would name them if you have two files with the same name, the installation WILL NOT be completed.
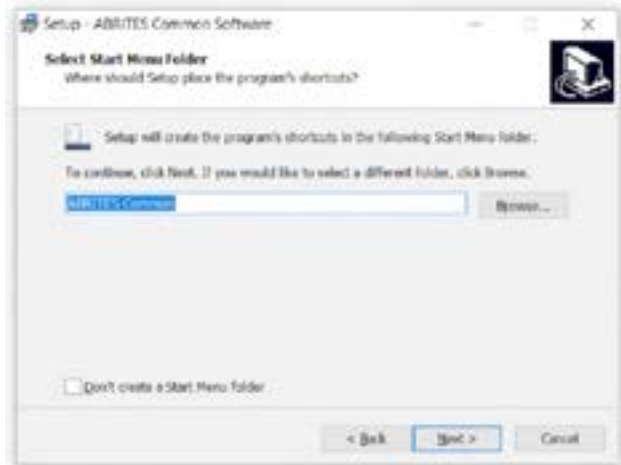

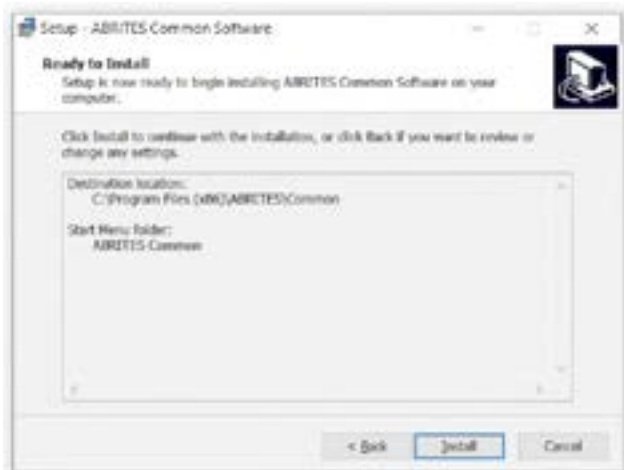Press the "Next" button to proceed with the installation.
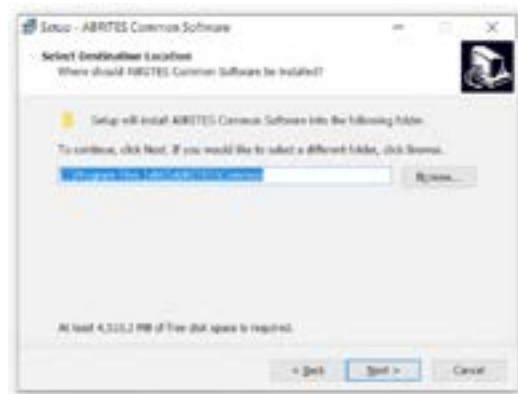
Press 'Next'.

Press 'Next'.

Press 'Install' and wait for the installation to complete.

Press 'Finish'.

Step 2.
Please, start the executable file 'SetupInterface_17xxxx.exe' (or 16xxxx.exe) to initiate the installation procedure and follow the on-screen instructions.

SetupInterface_1
7xxxx.exe

Depending on your operational system and settings you may be asked to confirm the start of the installation procedure or to type in your administrative credentials.
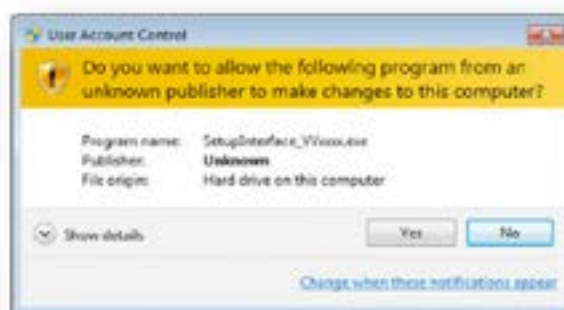
Press the "Next" button to proceed with the installation.
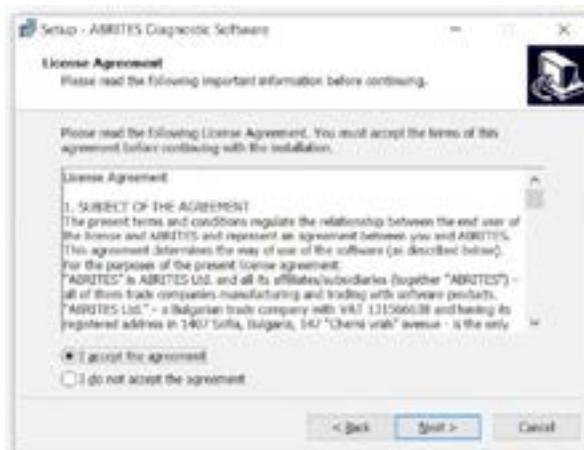
Read the license agreement carefully and select "I accept the agreement" if you accept it. Then press the "Next" button.

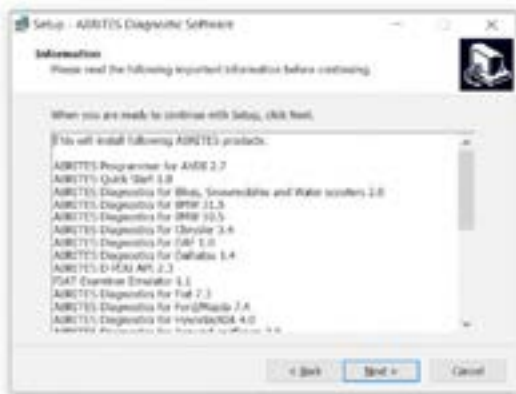If you do not agree press the "Cancel" button to interrupt the installation procedure.

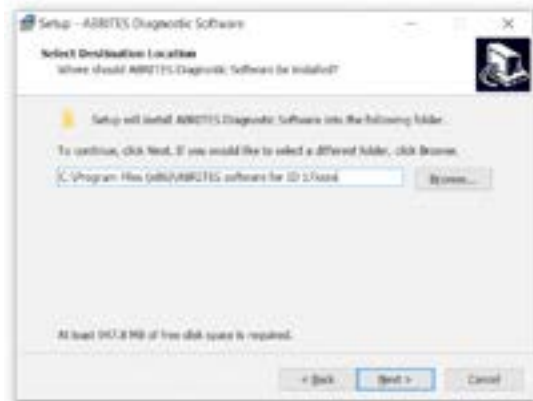Read the General Data Protection Regulation (GDPR) and press the "Next" button.

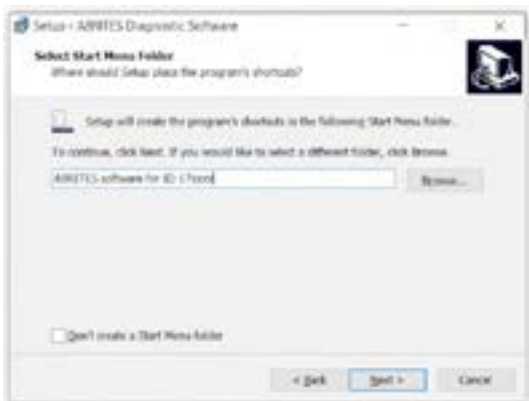If you do not agree press the "Cancel" button to interrupt the installation procedure.

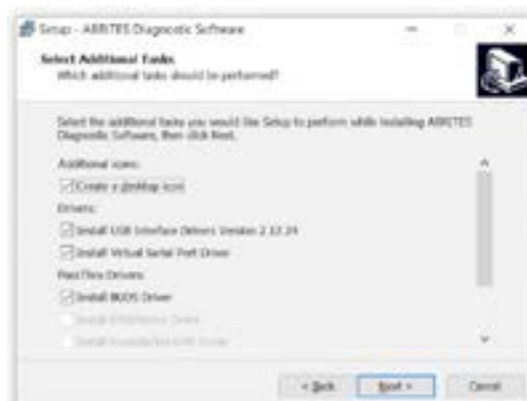Confirm the GDPR by pressing the "OK'' button.

Press the "Next" button to proceed with the installation.

Press the "Next" button to proceed with the installation.

Press the "Next" button to proceed with the installation.
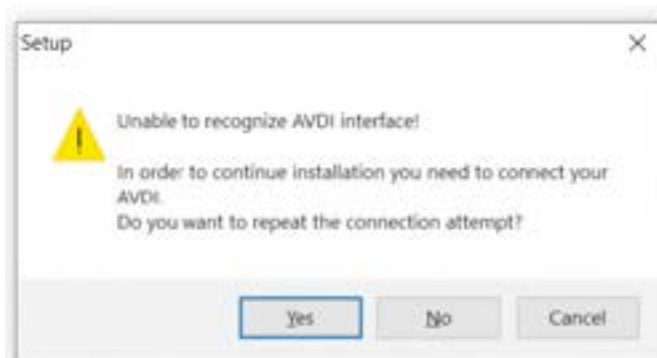

If you do not want desktop icons – uncheck the check box about the creation of these icons. Press the "Next" button to proceed.
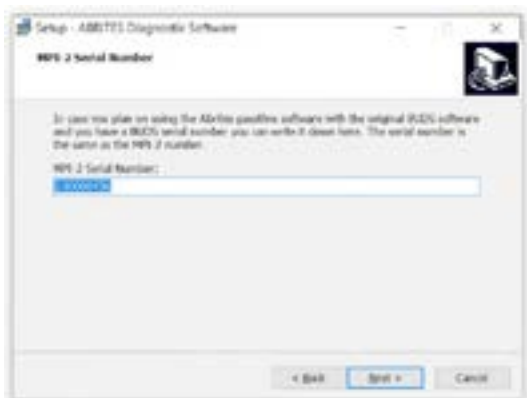
Press the "Next" button to proceed.

Press the "Install" button.

If you do not have your AVDI connected to the PC during the installation you will see this message. Connect your AVDI and press "Yes".

When the installation is completed the wizard will create an "Abrites Quick Start for ID17xxxx (or 16xxxx) desktop icon.

New generation Abrites Online Diagnostics for BMW/Mini, Renault/Dacia/Samsung, Honda, Mercedes-Benz, Mitsubishi, Nissan/Infinity, Rolls Royce, Subaru, Ford/Mazda, PSA, Hyundai/KIA, VAG

During the half of 2014 Abrites ltd. released a new generation of Online diagnostic software.
The Software is currently distributed together with the older platform. The new generation software (versions 31.5 and later) requires Internet access due to the large calculations performed by the Abrites server instead of the user's computer.
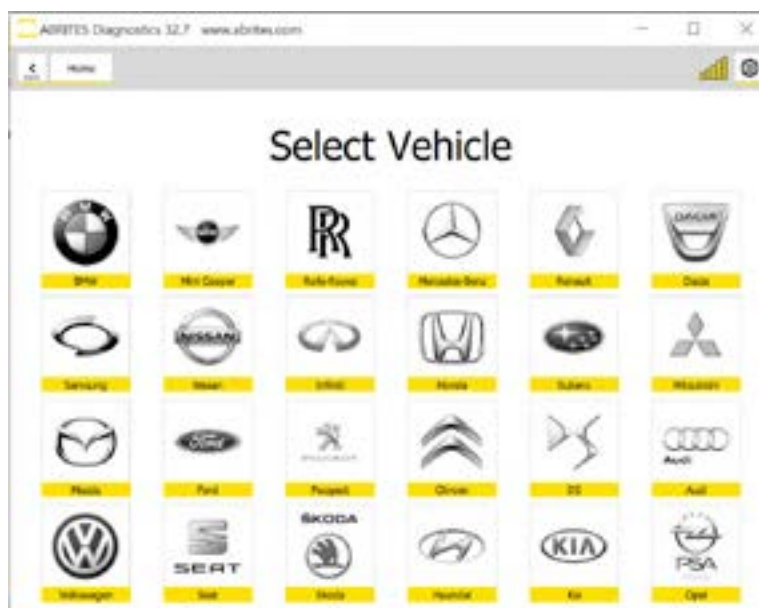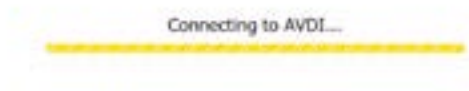
When the software is launched it will display the messages for server connection and AVDI connection.
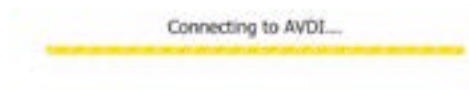
When new updates are available the Abrites software has to be run as administrator.

If more than one component need to be downloaded the software has to be run it one more time as administrator. Right click on the Abrites Quick Start icon on your desktop and select "Run as administrator".

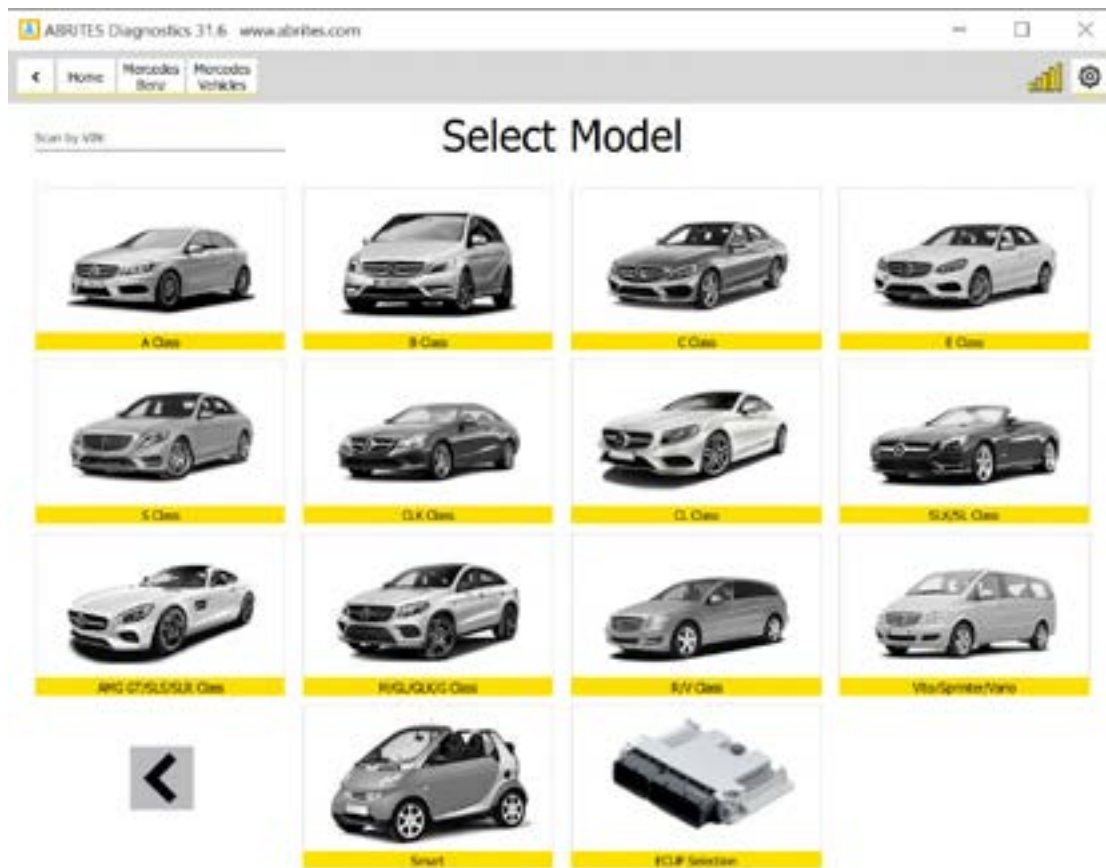As soon as the interface is recognized and all updates are installed the list of available models will be displayed.

Please, be informed that the installation includes a copy of the user's manual to which you could refer at any time. It is stored in the following location:

Start menu -> Program Files -> ABRITES -> Common -> AVDI Common User's Manual

You could use the interface for any given diagnostics by going to the following location:
Start -> Program files -> ABRITES software for ID17xxxx(or ID16xxxx) -> choose one of the folders named by brand or open the "ABRITES Quick Start.exe" file.

3. Devices & Programmers

3.1 ZN030 ABPROG Programmer

You could access the ABPROG Programmer for AVDI by going to the following location:
Start -> Programs -> ABRITES software for IDxxxxxx -> ABPROG -> ABPROG.exe.

ZN030-ABPROG + ZN031-M35XXX/SPI/I2C Adapter +
ZN046 (key renewal adapter for Hitag 2 keys) + ZN034 (ABPROG flat cable) together with Abrites EE-PROM Programmer software allow you to erase and write SPI EEPROM memory with and without incremental registers.

A detailed user manual is included in the following directory:
Start menu -> Program Files -> ABRITES -> Common -> ABPROG

3.2 ZN003 PROTAG

The new generation Abrites PROTAG Programmer is the latest upgrade to our powerful key program-ming tool! The ZN003 contains the full functionality of the ZN002 and expands its capabilities.

You could access the PROTAG pro-grammer software by going to the following location:
Start -> Programs -> ABRITES soft-ware for IDxxxxxx -> TagKeyTool -> ABRITES Tag Key Tool.exe

A detailed user manual is included in the following directory:
Start menu -> Program Files -> ABRITES -> Common -> Tag -> Tag Key Tool Common User's Manual

3. Quick Start

The Abrites Quick Start for IDxxxxxx where ''xxxxxx'' is the ID of your AVDI is a simplified user interface which allows you to start working with the AVDI in a much quicker manner.
After the installation is complete you should have a Quick start icon on your desktop as well as a start menu shortcut.

3.1 Interface preparation and connection to the PC

Connect the USB cable from the AVDI package to the interface.

Connect one of your diagnostic cables (OBDII, Deutsch etc.) to the interface

Connect the main USB connector(CB104) to your PC

If you are connecting the interface to your USB port for the first time wait until Windows notifies you that the drivers are installed successfully. Please, take into account that if you reconnect the interface to another USB port of your PC for the first time you might need to wait again until Windows confirms your successful installation.
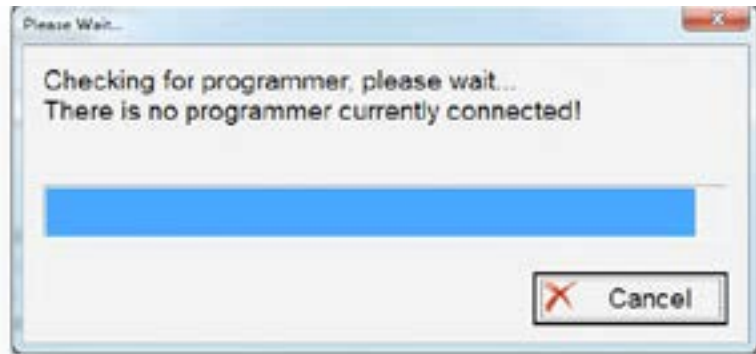
You are ready to run some of the diagnostics.

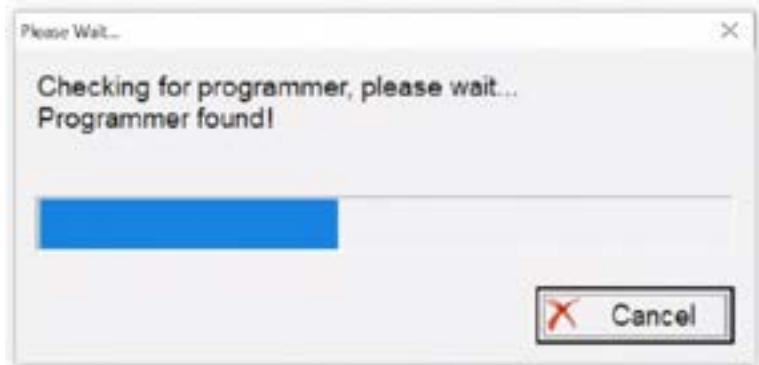When you start a diagnostics you should see this:

This means that the connection to the interface is OK:

The software checks for connected PROTAG programmer:

If you HAVE connected the PROTAG programmer you should see this message that the PROTAG programmer is successfully recognized and you can start working:

4. Using AVDI with a virtual machine (VM)

If you like to use your AVDI interface (software) with a virtual machine here are some preliminaries that should be made.

4.1 Install AVDI software on the VM

After you have loaded and played the VM on which you would like to use your AVDI interface, please install the ABRITES Software for the AVDI interface which you want to use on the VM. This is done exactly as the installation on your host PC (see 2.1 Software installation steps).

Be sure that the check box about the installation of the interface's USB drivers is set, especially if you are installing the Abrites Diagnostic Software for the first time on this machine.

Wait for the drivers to be installed.

4.2 Connect AVDI to the VM

After the ABRITES Software is installed on the VM and you have connected the AVDI interface to an USB port of your PC you should redirect this port to the VM, otherwise you cannot use the AVDI interface on the VM!

This can be done in the following way (example with VMware):

From the main menu of the VMware player, select "Virtual Machine" → "Removable devices" → "Future devices avdi interface 17xxxx(or 16xxxx)" → "Connect (Disconnect from host)".
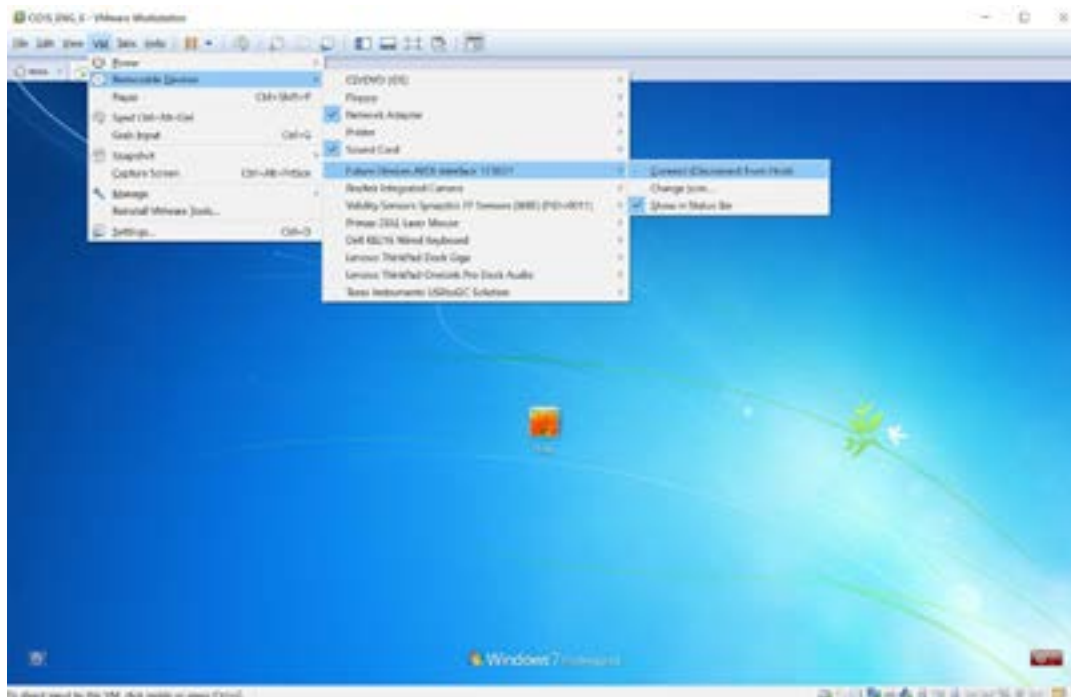
Here 17xxxx(or 16xxxx) is your interface identification number.

You will be shown a message informing you that the USB device will be unplugged from the host machine and connected to the virtual machine.

If you like to disconnect the AVDI interface from the VM (so you can use it on the host PC) you can either close the VM Player or do it through the VMWare menu "Virtual Machine" → "Removable devices" → "future devices avdi interface Vvxxx" → "Disconnect (Connect to host)".

4.3 Shut down the VM

After you have finished working with the Virtual Machine you should perform "Shut down" of the Operating System. This applies also when using the J2534 Passthru driver on Virtual Machines.

4.4 Set latency timer

Another prerequisite before you start using the AVDI interface on the VM is to set the latency timer of the COM port where the AVDI interface is recognized to 1ms.

This can be done in the following way:
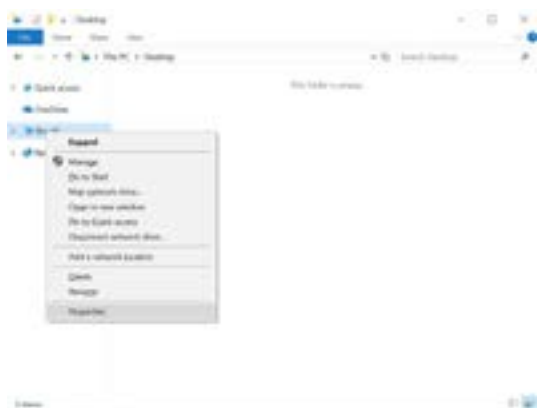
Open Windows Explorer then right click on "This PC" ("My computer") and select "Properties".

From the "System properties" window select "Device manager".

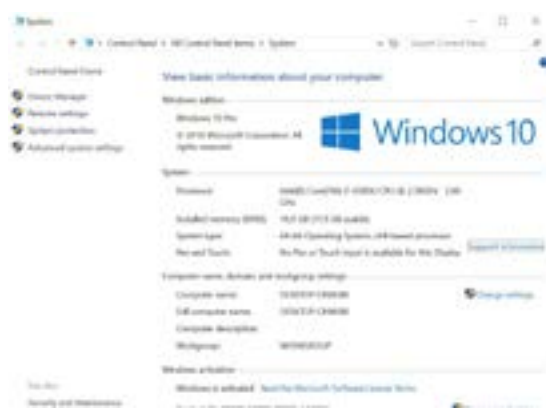In the opened window select **"Ports (COM & LPT)".** Your AVDI will appear in the list as "USB Serial Port (COM xx)" where "xx" can be different number. Double click on it.
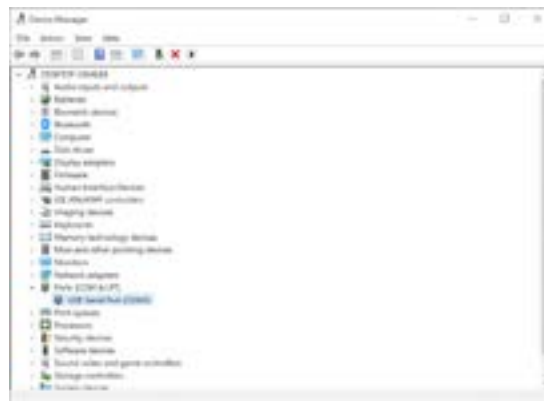
From the screen select **"Port settings"** and then press **"Advanced".**

Make sure **"Latency timer"** is set to 1.

Please, note that if you connect your AVDI to a different USB port you should do these steps again.

4.5 Working with J1850 adapter

Abrites J1850 adapter is intended to support SAEJ1850 PW 10.4 kbps and PWM 41.6 kbps protocol standarts.

Adapter must be connected **between AVDI and OBD2 cable** using the DB25 sockets.

No additional settings are required.

The J1850 adapter

5. TROUBLESHOOTING

5.1 abrites.exe - System Error

An error like that may occur upon opening an Abrites Online software with a 35.0 or above software version. Please note that this is a Windows connected case, and you need to update your Microsoft Visual C++ Redistributable.

Examples:
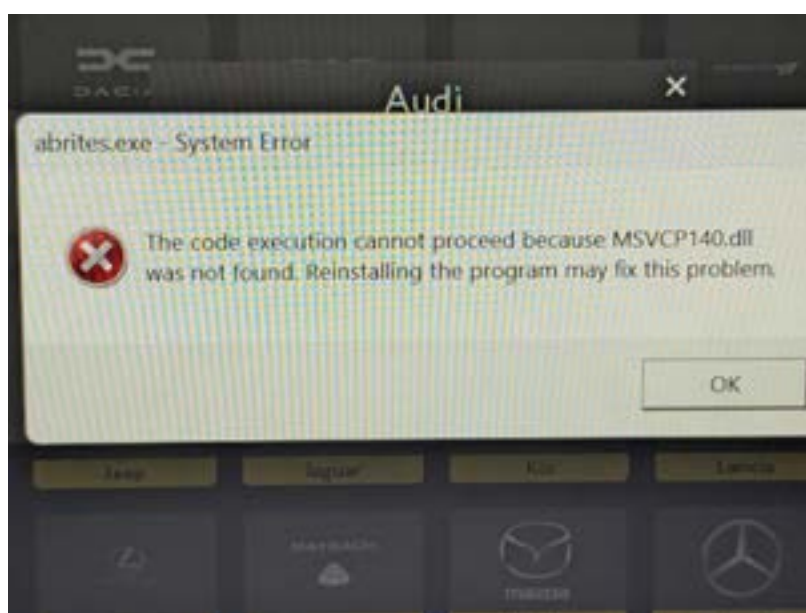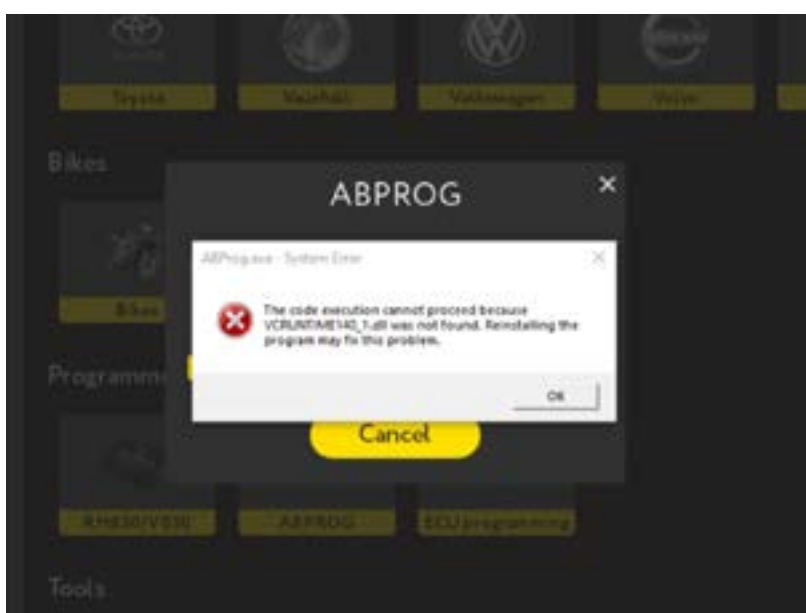
5.2 Windows Error

In some specific cases when updating Abrites software, after setup installation and then the Passthru installation you may face the following error:
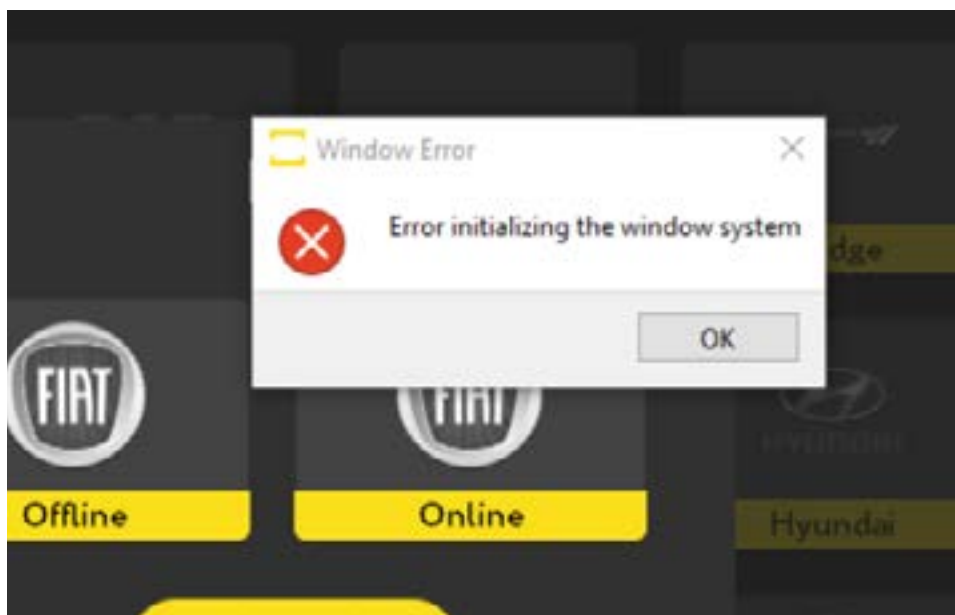
The solution is to uninstall the software update, then install the Passthru first and then the setup.

5.3 Windows 7 problem

Windows 7 Operation System is not supported by Microsoft for many years now, and this reflects on its behavior with other software applications, such as the Abrites software. The latest software version of the Online platform, which works smoothly with Windows 7 is the 34.9 version. Software versions 35.0 and above would require you to update your Windows operation system to a version that is supported by Microsoft. You can check the supported versions on the Microsoft website.

We have a partial solution for customers, who still want to use the Abrites products on the Windows 7 platform, but this has some limitations. You will be able to use the 34.9 version of the Abrites Online software, and you will not be able to benefit from any updates.

Having in mind the limitations, you can install additional application, which will install the 34.9 version on you computer, and will not let any updates go trough - thus, you can use all the functionalities available before the release of 35.0 software versions.

Please use the link HERE

5.4 LATENCY TIMER – PROBLEM

Sometimes depending on the user rights in Windows you may see the following message:
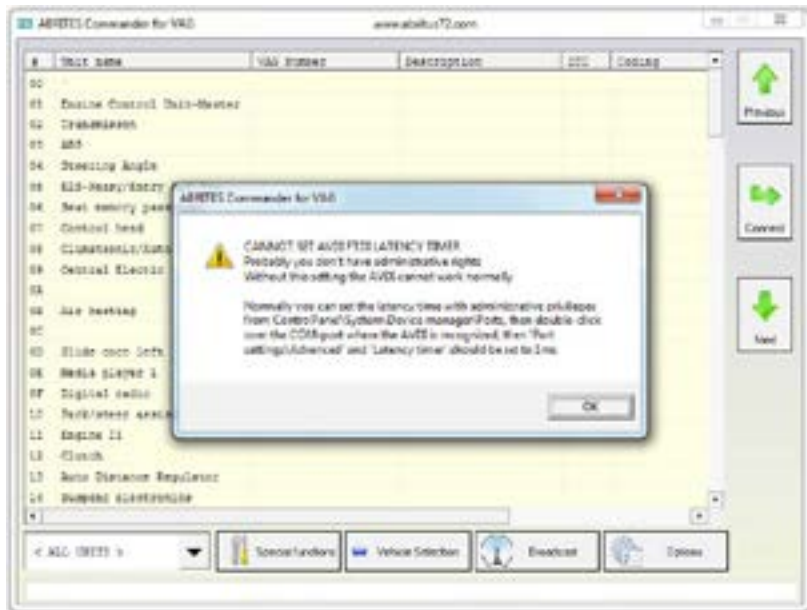
You have two options for this – first is to run the application as an administrator
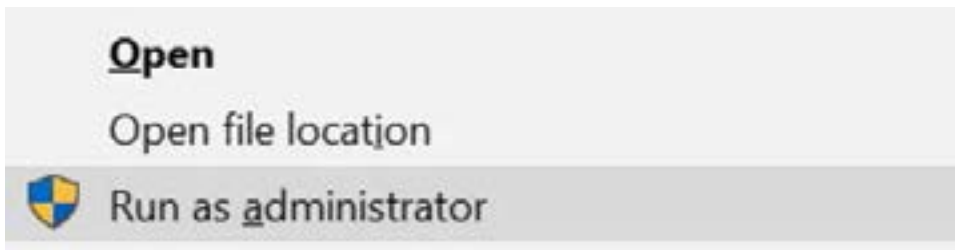
Or to change the port settings:

Connect your AVDI to an USB port of your PC

Open Windows Explorer then right click on "This PC" ("My computer") and select "Properties".
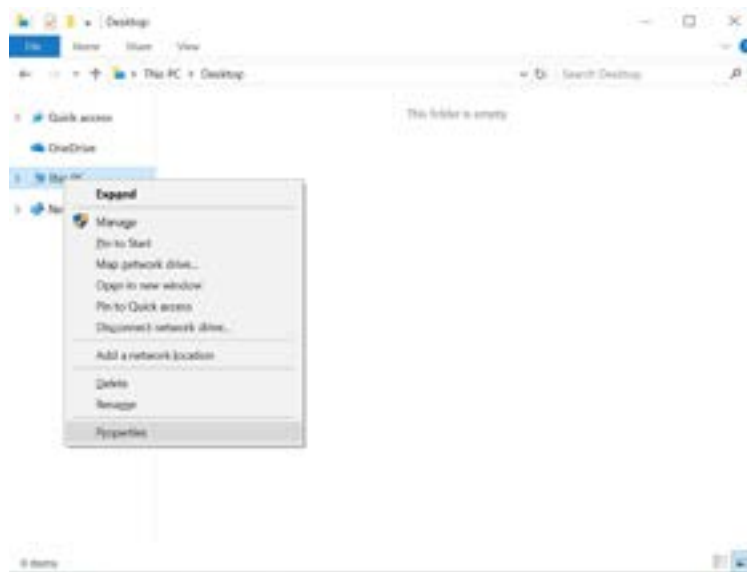
From the "System properties" window select "Device manager".
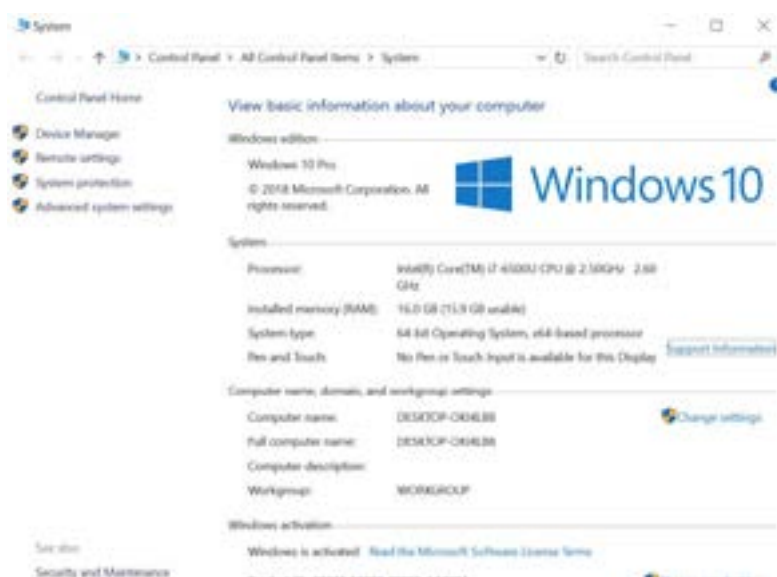
In the opened window select "Ports (COM & LPT)".
Your AVDI will appear in the list as "USB Serial Port (COM xx)" where "xx" can be different number. Double click on it.
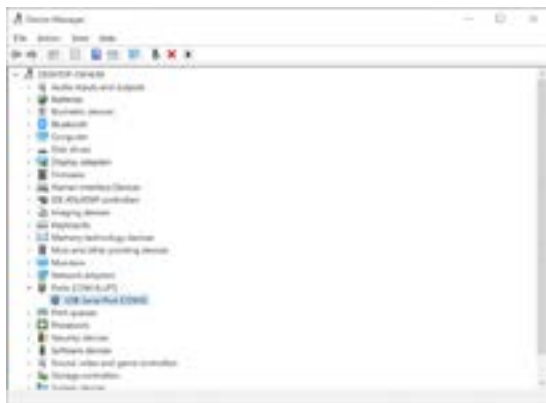
From the screen select "Port settings" and then press "Advanced".

Make sure "Latency timer" is set to 1.

Please, note that if you connect your AVDI to a different USB port you should do these steps again.
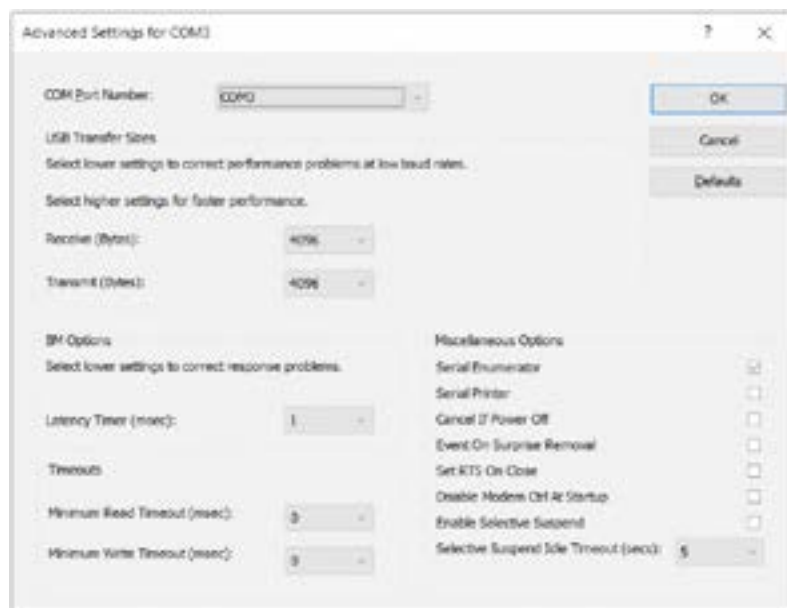
5.5 Internet Synchronization (Hardware Update)

The latest AVDI Diagnostics update introduced **a mandatory update** of the hardware over Internet. This update is regular and should be performed at least once a month.
If the Internet update is not performed, the hardware will have limited functionality and will be not able to connect to vehicles until it is activated.

Please note that performing the Internet update is an essential initial step. For many of the functionalities of your AVDI you will not require to have an Internet connection to your computer but it is recommended to have your computer constantly connected to the Internet, especially when you are using a function which requires Internet connection or when you are using one of the **Online software.**

The procedure for performing the AVDI Internet update is as follows:
1. Download and install the latest AVDI Diagnostics update and start the Abrites diagnostics.
2. This Internet update is performed automatically once the AVDI Diagnostics software is started. It is indicated by the message **"Performing Internet activation...".**
3. If the Internet activation is successful, the next time you start the diagnostic software, the message **"Performing Internet activation..."** should be not shown.

IMPORTANT: If the message "Performing Internet activation..." is not displayed the time you start the application, your hardware is ready for use. The Internet update will expire in one month when you will need to reconnect your computer to the Internet and make sure your interface performs the update when you start your Abrites diagnostic software.

4. If the message "Performing Internet activation..." continues to be shown the Internet update was not successful and the possible reasons for this issue might be:

    No Internet connection to the computer you are installing your software on. In that case please allow the connection of this computer to the Internet.
    The date on your computer is Incorrect. In that case please set the time and date on your computer to the current time and date at your location.

NOTE: Due to the time zone after running the latest SW update for the first time, the Internet pdate might not be successful in the first 1-2hours.

Effects if the Internet update is not performed:
    The AVDI hardware is recognized OK, but no connection to the vehicle is possible.
    Some diagnostic software might crash if you try to connect to the car.
    The update MUST be performed periodically (every 30 days) in order for your AVDI to always work properly and not experience any of the symptoms above.

Make sure to connect your AVDI and allow it to perform its Internet update every 30 days.
In case the procedure does not go as planned and you encounter an issue different to the ones above please contact support@abrites.com with a detailed description of the steps you took and their effect.
Upon starting the Abrites diagnostics software in the top right hand side of the screen you will see how many days (or hours) you have until the next synchronization. In case you see the following message you will need to perform the Online update of your hardware.

Then perform the following steps (After making sure that you have a stable Internet connection):

1. Start your Abrites diagnostic software(for example you can use the Abrites diagnostics for Audi)

2. When you start the software you will see the following message:
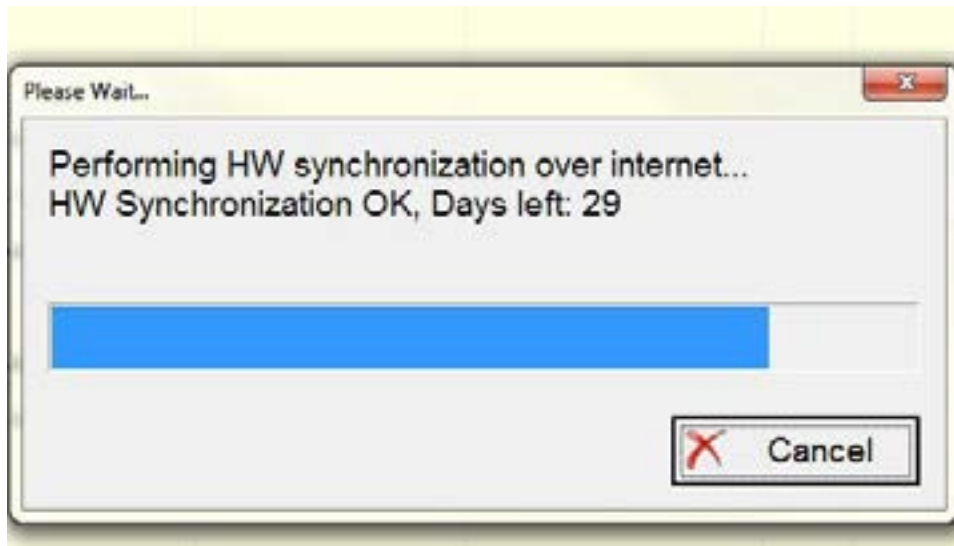
This means that your AVDI communicates with the Abrites secure server and the online synchronization is being performed.

3. Once the synchronization is over you will see the following message when opening the Abrites diagnostic software:
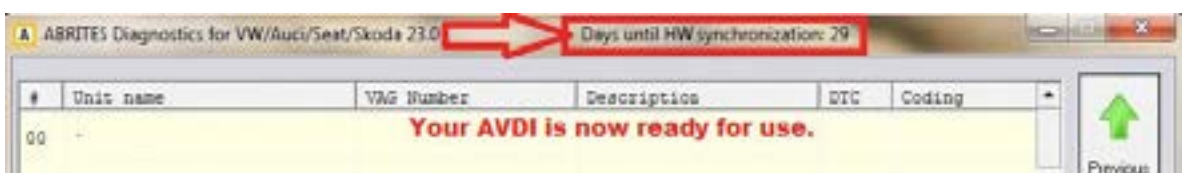
This means that the synchronization has gone according to plan and the AVDI is ready to use.

5.6 GRAPHIC PROBLEM USING THE ONLINE SOFTWARE

This graphic issue could happen when you are using one of the Abrites Online software such as BMW2. Here is the solution:

Type "environment " in the Windows search menu.

Go to the "Advanced" tab and select "Environment Variables"
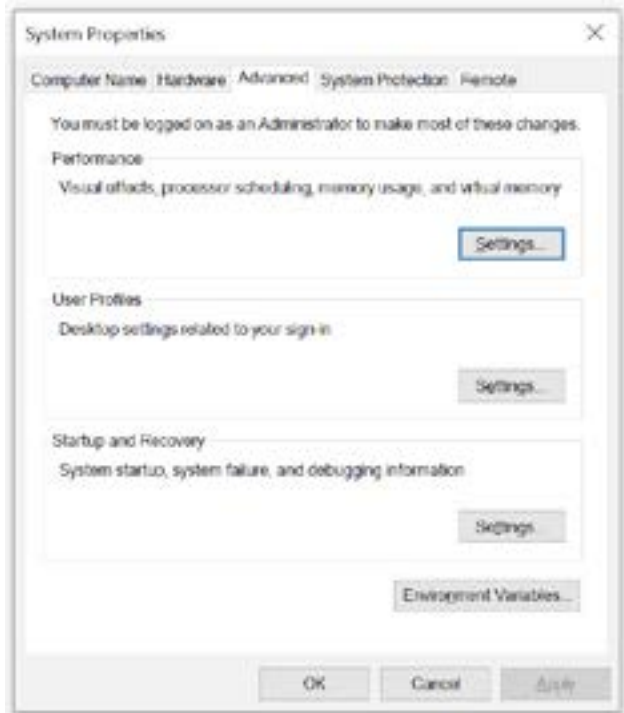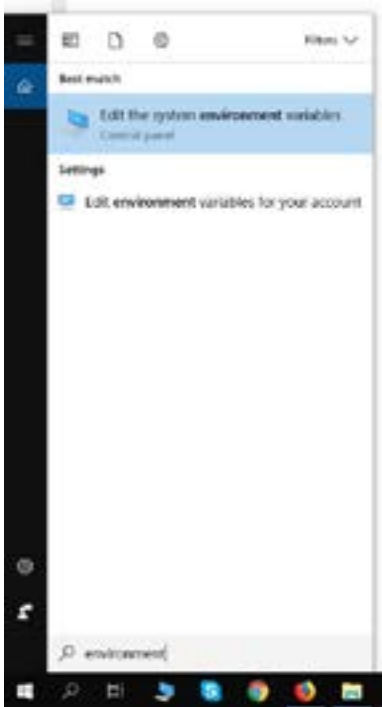
Press "New" under "User variables for 'your user name' "
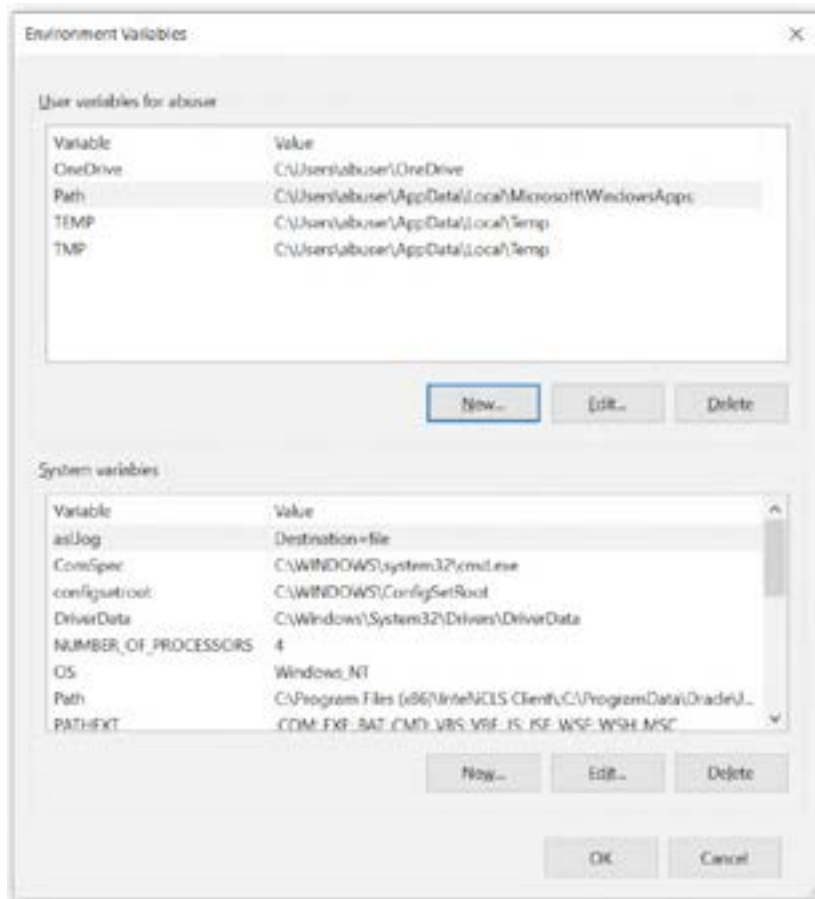
Create a new variable named "QT_OPENGL" with value "desktop" (change it with "angle" or "software" if "desktop" does not solve the graphic issue) and press "OK". Restart your PC.
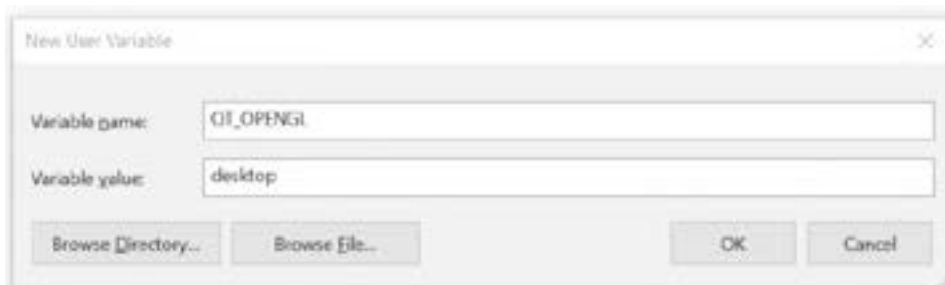
5.7 INTERNAL SETUP ERROR (174)
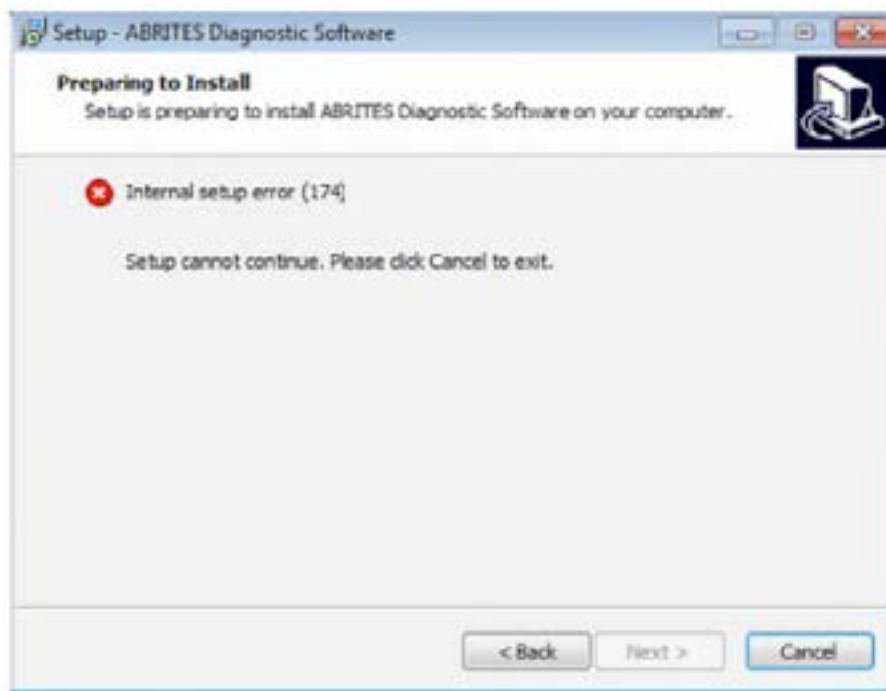
This error means that during the software build process your links haven't been built correctly.
The solution would be to generate **new software links.** You can request them by contacting us at the following e-mail address: support@abrites.com

5.8 ERROR CODE: 0X17022
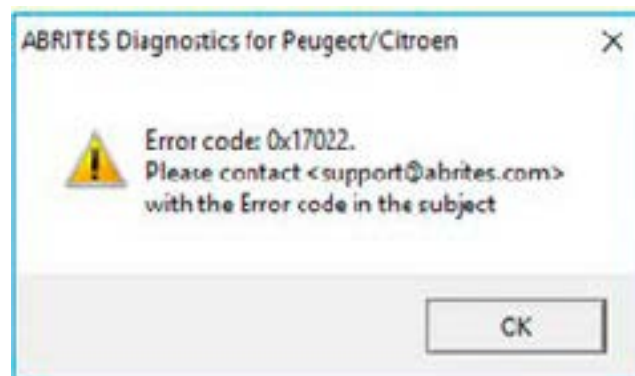
The error means that there are two versions of the same software installed on your PC. Uninstall the Abrites software and reinstall it using the latest links only.

5.8 Connection Error: Interface not connected

This error means that your Interface is not recognized. You will need to perform some troubleshooting steps before sending the Interface for repair:

1. Make sure the software is properly installed and LED light of your Interface lights up.
2. Remove all Abrites software and reinstall it from the latest links.
3. Install the latest FTDI drivers:
http://www.ftdichip.com/Drivers/VCP.htm
Next to "Windows®" you will find a setup executable which should be downloaded and then installed on your PC.
4. Disable all anti-virus programs.
5. Try with another USB cable provided by Abrites if available(your PROTAG uses the same USB cable as your AVDI Interface).
6. Try on a different PC.
If that does not resolve the issue your Interface has to be repaired. Please contact us at the following e-mail address: support@abrites.com

5.9 Connecting to Server Failed. Check Internet Connection!!!

This error means that your Interface cannot connect to the Abrites server. There are a few possible reasons:

1. Your Internet Server Provider (ISP) has blocked some Internet ports which are used for connecting to our server. In that case you have to try connecting using another Internet connection such as 3G/4G.

2. You are running an old version of the Abrites Online software. We keep only the last two software versions and if your software is not up to date you won't be able to connect to our server and you will receive this error. In that case you have to update your software to the latest software version from the latest links. E.g., as of Dec 18th the version for all Online software is 32.7, this means you won't be able to connect to our server if you are running an older version than 32.5.

5.10 AVDI Installation Windows Defender Smart Screen Problem

HOW TO DISABLE WINDOWS DEFENDER IN WINDOWS 10:

If ever during installation you come across any issues with Windows defender and Smart screen we advise you to start the Windows Defender:
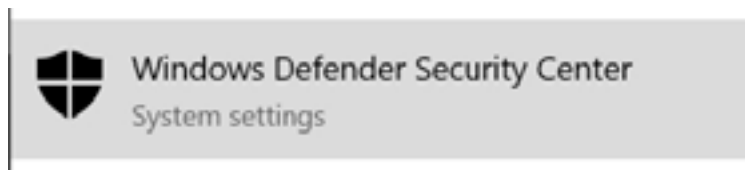
Go to the Smart screen options(type "app & browser control" in the search menu) and disable the blocking:
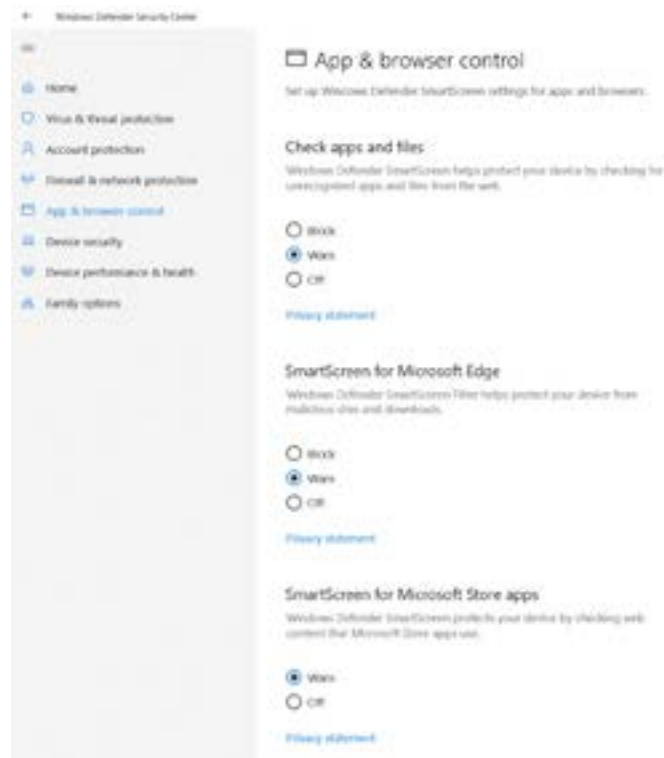
After reinstalling make sure to turn it back on in case real harm occurs.

Read more here:
https://www.microsoft.com/en-us/windows/comprehensive-security

HOW TO DISABLE WINDOWS DEFENDER IN WINDOWS 7:

Type "Windows defender" in the search menu

Select "Tools" followed by "Options"
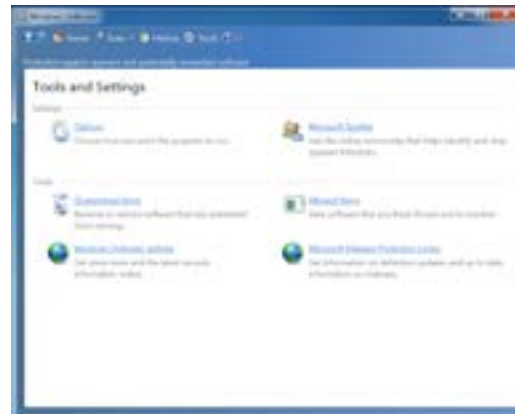
After reinstalling make sure to turn it back on in case real harm occurs

Select "Administrator and uncheck "Use this program" followed by "Save"
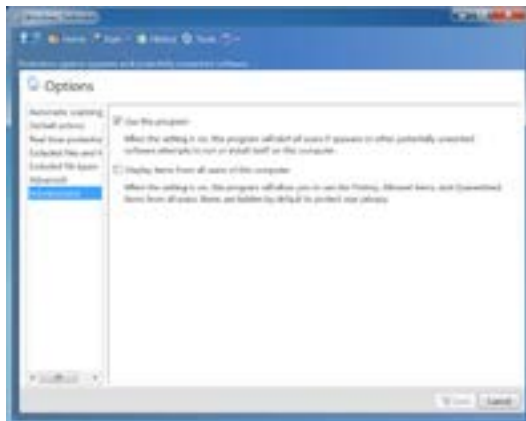
After reinstalling make sure to turn it back on in case real harm occurs. Please type once again "Windows defender" in the search menu and click "click here to turn it on"
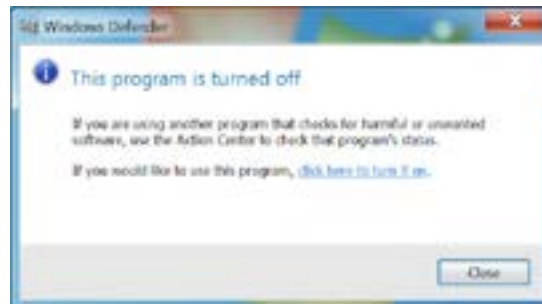
6. Additional cables and products

CB106 (OLDCB100) - AVDI OBDII CABLE (SAE J1962)
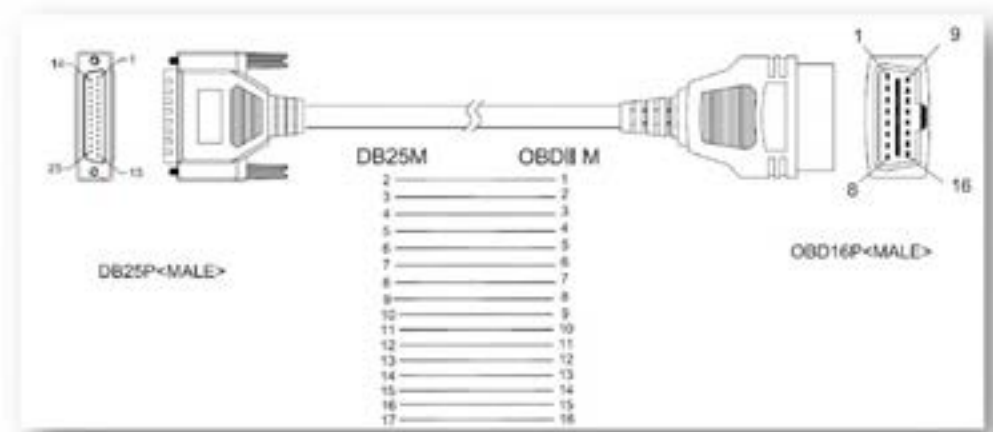
CB002 – BMW 20 PIN CIRCLE CABLE
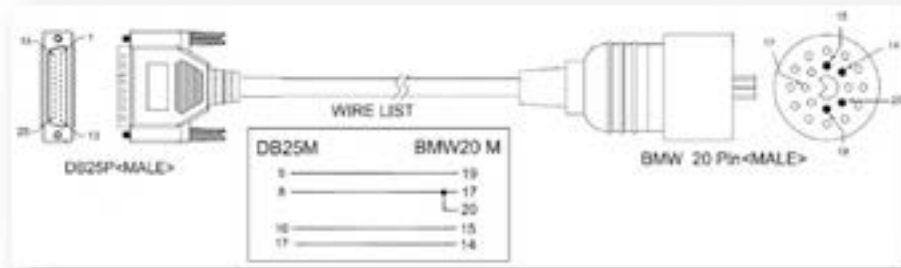
CB003– MERCEDES 38 PIN CABLE
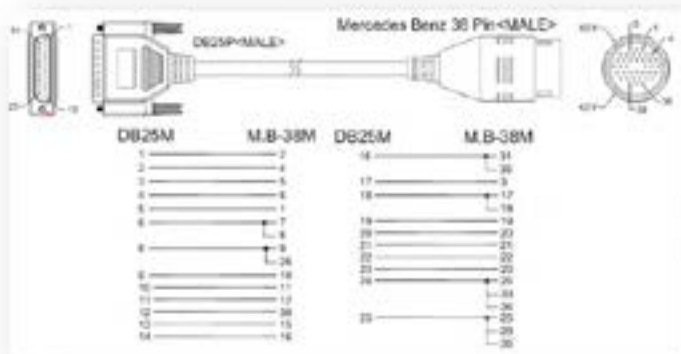
CB004– MERCEDES SPRINTER 14 PIN CABLE

OBDII (F)   14 pin cable
4+5   1
16   3
7   14
15   4

CB005– CABLE FOR CONNECTING AVDI AND ESL(ELV)

DB25(M)   ESL
5   GND
8   K-line
17   +12V

*This adapter has now evolved into CB026
and is not sold anymore.

CB006– CABLE FOR CONNECTING AVDI AND DASHBOARD W203, W209, W211, W219

DB25(F)   Dash connector
5   GND (Dash pin 1)
7   Can Hi (Dash pin 18)
15   Can Lo (Dash pin 17)
17   +12V (Dash pin 4+6)

CB007– CABLE FOR CONNECTING AVDI AND BRP
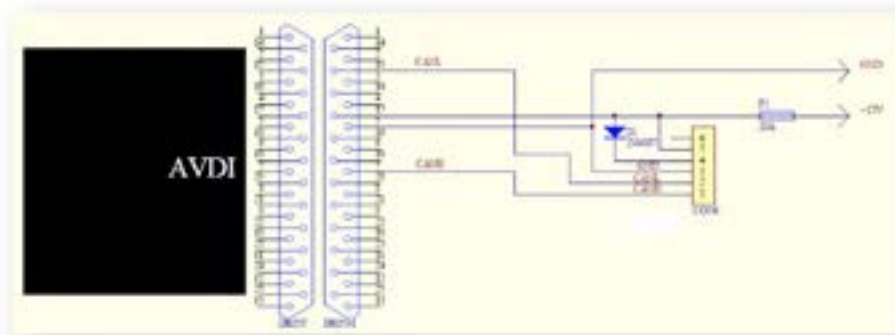
CABLE FOR CONNECTING AVDI AND DEUTSCH 6 PIN
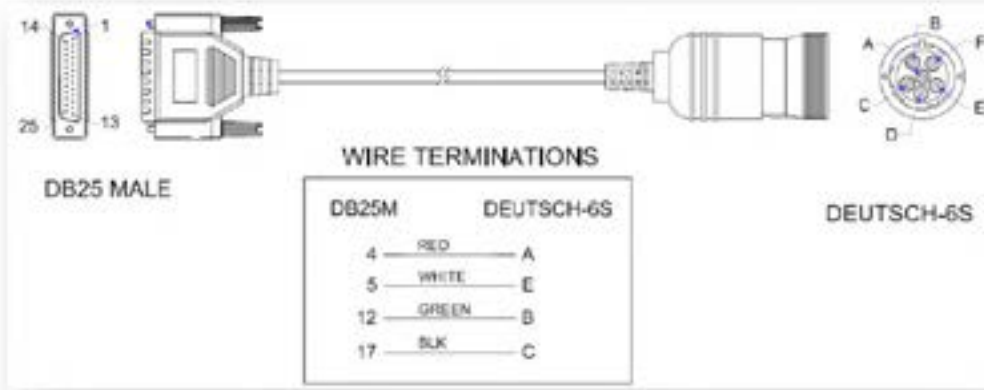
CABLE FOR CONNECTING AVDI AND DEUTCSH 9 PIN
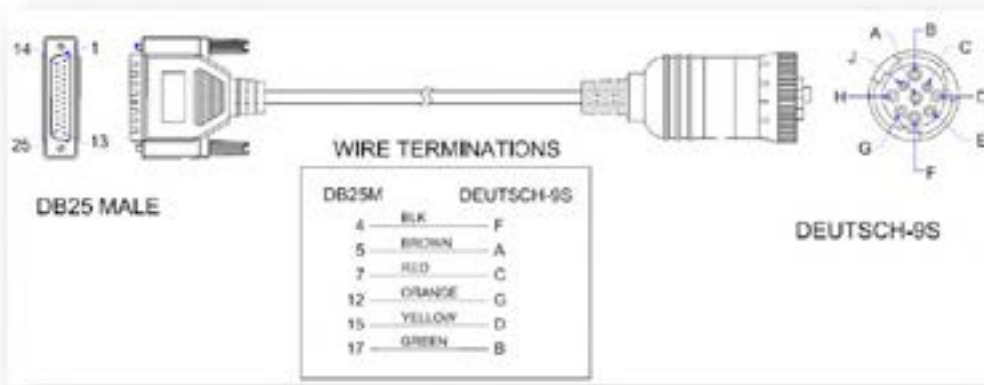
J1850 ADAPTER

CB008 – CABLE FOR AVDI CABLE FOR BMW BIKE DIAGNOSTIC CONNECTOR

CB009 – AVDI CABLE FOR CONNECTION WITH TRUCKS DEUTCSH 6 PIN (J1708)

CB010 - ABRITES STAR CONNECTOR FOR FCA - NOT SOLD ANYMORE, NOW CB019

CB011 - ABRITES MERCEDES-BENZ CABLE FOR EZS, 7G TRONIC AND ISM/DSM

CB012 JLR ALL KEYS LOST CABLE SET

CB013 MSD/MSV BENCH CONNECTION CABLE SET

CB015 - BMW ENET CABLE

CB017 - ALL KEYS LOST CABLE FOR FCA

CB019 - FCA SECURE GATEWAY CABLE

CB021 - RENAULT-NISSAN JUMPER CABLE

CB022 - MERCEDES ACTROS JUMPER CABLE

CB023 – BMW MD/MG ECU CONNECTION CABLE

CB024 - MERCEDES-BENZ MD/MG ECU CONNECTION CABLE - OUT DATED - NOW CB030

CB025 - EXTENSION CABLE FOR DS BOX RELAY

CB026 - FBS4/FBS3 ELV CONNECTION CABLE

CB027 - DIAGNOSTIC CABLE FOR TESLA MODEL 3 - IT HAS REPLACED THE CB020 AND IS PART OF THE ZN087 SET

CB029 - DIRECT CAN CONNECTION EXTENSION CABLE

CB030 - MERCEDES-BENZ MD1/MG1 ECU CONNECTION CABLE FOR FBS4 MANAGER AND ECU PROGRAMMING TOOL

CB031 - EXTENSION CABLE FOR DIRECT CONNECTING TO TOYOTA/LEXUS SMART SYSTEM WITH B9/BA

CB032 - DCM6.2 CONNECTION CABLE

CB101 AVDI EXTENSION CABLE FOR ABPROG (ZN030)

CB102 – EXT CABLE FOR 25 PIN F/M

CB103 – OBDII Y CABLE M/2XF

CB104 - USB A-B CABLE

CB106 - AVDI OBDII CABLE (SAE J1962)

CB107 - USB A-C CABLE

CB201 – AVDI CABLE FOR CONNECTION WITH SUZUKI MARINE ENGINES TYPE 1

CB202 – AVDI CABLE FOR CONNECTION WITH SUZUKI MARINE ENGINES TYPE 2 (ROUND)

CB203 – AVDI CABLE FOR CONNECTION WITH YAMAHA MARINE ENGINES

CB204 AVDI CABLE FOR CONNECTION WITH EVINRUDE MARINE ENGINES

CB205 EVINRUDE FLASH UPDATE CABLE

CB301 – AVDI CABLE FOR CONNECTION WITH APRILIA BIKES

CB302 – AVDI CABLE FOR CONNECTION WITH KTM BIKES

CB303 – AVDI CABLE FOR CONNECTION WITH BENELLI BIKES

CB304 – AVDI CABLE FOR CONNECTION WITH SUZUKI BIKES (6 PINS)

CB305 – AVDI CABLE FOR CONNECTION WITH HARLEY-DAVIDSON BIKES

CB306 – AVDI CABLE FOR CONNECTION WITH PIAGGIO BIKES

SET307

The SET307 contains a designated cable and antenna for key programming procedures (in All Keys Lost situations and for spare key addition) on BMW motorcycles with smart key on bench on the vehicle when needed.

Contents:
- CB307 Direct CAN-BUS Connection Cable for BMW Bikes
- ANT001 Key Transponder Antenna for BMW Bikes

CB403 - CB403 - DS-BOX Extended Cable Set for direct connection with various Automotive/Truck modules on Bench work
The CB403 cable is developed for working on modules, for example ECUs, TCUs, and others, on bench using the ZN051 Distribution Box. It has multiple connectors for establishing direct connection with a wide range of modules in trucks, buses, heavy-duty and passenger vehicles to read, write, virginise, personalize, update them and more!

Functionalities:
Direct connection with automotive modules in passenger vehicles, trucks, buses, and heavy-duty machinery

The CB403 is not a standalone product, it requires the ZN051 and AVDI. In case you have the ZN051 Distribution Box, you already own the CB401, which has similar functionality to the CB403. Nevertheless, the CB403 offers an easier and faster way to finish the job.

1. Main cable 70 cm long, which is equipped on one side with HD15 connector (with all pins wired) and round hole terminals on the other side. - 1 piece.

HD15 pinout, wire color and designation:
1 - pink - "IGN"
2 - yellow and yellow/white - "B+" (on both wires)
3 - red/blue - "K-LINE 1"
4 - purple - "BOOT 2"
5 - white - "BOOT 1"
6 - green - "T2"
7 - brown - "T1"
8 - red - "CAN H"
9 - green/white - "T3"

10 - green/brown - "T4"
11 - black - "GND"
12 - gray - "GND"
13 - yellow/brown - "B+ PERMANENT"
14 - blue - "CAN L"
15 - grey/pink - "K-LINE 7"

2. Connectors:
Splitter adapter - 1 male to 3 female with round terminals - 4 pcs.
Note: All the tips described below have a male round terminal on one side to connect to the main cable with the HD15 connector.

3. Tip with gray wire and length 20 cm:
Crocodile tip - 4 pcs.
Small terminal tip - 2 pcs.
Middle terminal tip - 2 pcs.
NO terminal - 2 pcs.

4. Tip with a red wire and a length of 20 cm:
Small terminal tip - 1 pc.
Middle terminal tip - 1 pc.

5. Tip with a blue color and a length of 20 cm:
Small terminal tip - 1 pc.
Middle terminal tip - 1 pc.

6. Tip with brown wire and length 20 cm:
Small terminal tip - 1 pc.
Middle terminal tip - 1 pc.

7. Tip with green wire and length 20 cm:
Small terminal tip - 1 pc.
Middle terminal tip - 1 pc.

8. Tip with an orange wire and a length of 20 cm:
Small terminal tip - 2 pcs.
Middle terminal tip - 1 pc.

9. Tip with a black wire and a length of 20 cm:

Small terminal tip - 1 pc.
Middle terminal tip - 2 pcs.
Large terminal tip - 1 pc.

10. Tip with a yellow wire and a length of 20 cm:
Small terminal tip - 1 pc.
Middle terminal tip - 2 pcs.
Large terminal tip - 1 pc.

11. Tip with gray color and length 30 cm:
NO terminal - 1 pc.

12. Tip with purple color and a length of 30 cm:
NO terminal - 1 pc.

CB501 - RH850/V850 CONNECTION CABLE

CB603 - TRUCK MCM CONNECTION CABLE

CB604 - TRUCK TCU CONNECTION CABLE

ZN002 PROTAG PROGRAMMER - OUT DATED - NOW ZN003

ZN003 PROTAG PROGRAMMER

ZN030 ABPROG Set

ZN031 - ABPROG EEPROM/ BCM ADAPTER

ZN032 – ABPROG NEC ADAPTER WITH SOCKET

ZN033 – ABPROG NEC ADAPTER

ZN034 - ABPROG FLAT CABLE (OUTDATED)

ZN035 - ABPROG EEPROM SOCKET
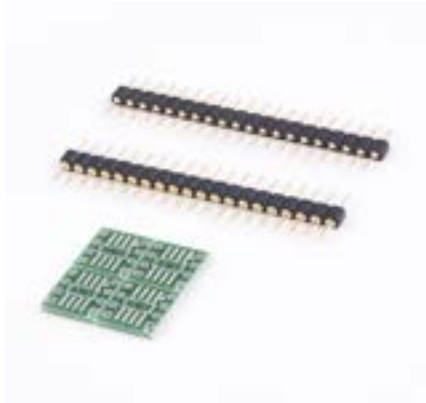
ZN036 – IR AVDI CABLE - OUTDATED - USE ZN076

ZN037 - RENAULT CAN ADAPTER

ZN038 - FIAT/CHRYSLER CAN ADAPTER

ZN039-2-TOYOTA TRANSPONDER EMULATOR

ZN040-A6/A7/A8 CAN ADAPTER

The Abrites A6/A7/A8 CAN Adapter is used in order to make the ALL KEYS LOST procedure for Audi A6/A7/A8 easier providing all necessary connections (OBD,DB25 and CAN separator connector). The set has a separate OBD plug that shorts PIN 1 and 16 on the OBD connector of the car to force ignition while reading the ELV using the green K-line cable.

ZN046 - PCF FOR ABPROG

ZN047 - FIELD DETECTOR RENAULT CARD 125 KHZ

ZN048 - FIELD DETECTOR UNIVERSAL KEY 125/20 KHZ

ZN049 - AVDI ADAPTER FOR CONNECTION WITH K-LINE BMW VEHICLES (PASSTHRU ONLY)

ZN051 - ABRITES DISTRIBUTION BOX

ZN052-ABRITES CABLE SET FOR ADAPTING IMMO PARTS USED TOGETHER WITH VN005

ZN053-AVDI EXTRACTOR CABLE USED WITH VN006 SPECIAL FUNCTION

ZN054-EXTENSION CABLE SET FOR DIRECT CAN CONNECTION FOR VAG VEHICLES

ZN051 DISTRIBUTION BOX

The ZN051 Distribution Box is mainly used together with the MN026 Special function for Abrites Diagnostics For Mercedes and VN004 Special function for VAG. The main purpose is to export the password from the EZS 10 times faster than without the DS Box(MN026) and to read engine ECU in boot mode. It has a hidden relay, which cuts the ignition when needed and re-connects it once again automatically. The DS Box allows us to connect it clean between the AVDI and the OBD. In addition to the Fuse Relay that is now built into the Abrites Distribution Box, it's work can also be monitored by the built-in LED.

Using the ZN051 we also open the door for many new features. It allows us to work easily with boot mode on EDC17/ MED17 boot mode for the Abrites diagnostics for VAG and others as well.

The distribution box now also includes the option to be updated so all new future functions and features will be available immediately.

The ZN051 set contains 9 pieces, which are as follows:

Needle Connectors

DB25 Connector Cable

CAN HI and CAN LOW long cables

Fuse Adapter Cable ,Crocks Cable and 1 K-line Cable

Distribution Box

DB15 Boot Mode Connector Cable

Pin Connectors (Used for EM001 update)

The kit will also include 5 resistors.

Distribution Box connection ports:

1st two ports (Red and Blue) are for CAN HI and CAN LOW 6-14, the 2nd ports below them are for CAN HI and CAN LOW 3-11. These ports are mainly used when virginizing and adapting Mercedes TCUs and ECUs when using MN026.
Both Green ports K1 and K7 are used for the K-Line connection (K7 has to be used when exporting a password from Mercedes EZS whn using the Relay method).
B+ and GND ports are used when updating EM001 Emulator.
The Relay Ports are both in red and this is where the Fuse Adapter is connected.

ZN055 - ABPROG EWS3 ADAPTER VN006 SPECIAL FUNCTION

ZN056-HONDA K-LINE ADAPTER

ZN057-EEPROM WIRE EXTENDER FOR ABPROG EEPROM/BCM ADAPTER

ZN058-V850E2 ADAPTER FOR ABPROG

ZN059-VAG VDO CLUSTER ADAPTER

ZN060 - VAG MICRONAS (NEW STYLE CONNECTOR) CLUSTER ADAPTER

*ZN061 - OLD-STYLE MICRONAS
CLUSTER ADAPTER*

*ZN062 - 12V/0.5A DC POWER ADAPTER
(USED WITH ZN055*

*ZN063 - 12V/1A DC POWER ADAPTER
(USED WITH ZN059 - MINI DB - VDO
AND ZN060 - MINI DB -
MICTRONAS)*

ZN065 - PWM VOLTAGE CONVERTER

The PWM voltage converter is to be used only in cases when reading an ECU on bench requires the
PWMs to be powered with 5V, instead of the usual 3.3V. The PWM voltage converter is compatible
ONLY with DSBox v. 2.3)."

ZN066 - SUBARU TRANSPONDER EMULATOR

ZN069 - TOYOTA MECHANICAL KEY (H-TYPE) ADAPTER SET. INCLUDES N067 AND ZN067

ZN072 - ABRITES CABLE SET FOR TESLA MODEL S/X AND MODEL 3
Outdated and replaced by ZN087

ZN073 - BDM PROGRAMMER

ZN074 - ECU READING SET

ZN075 - IR ADAPTER FOR MERCEDES ACTROS

ZN076 - USB IR ADAPTER

ZN078 - V850ES ADAPTER FOR ABPROG

ZN079 - ZF 8HP TCU CONNECTION CABLE

ZN080 - BCM2 SOLDER-FREE CONNECTION SET

ZN085 - ABRITES PROGRAMMER RH850/ V850

ZN087 - ABRITES CABLE SET FOR TESLA MODEL S/X AND MODEL 3

ZN083 - 5V/2A DC POWER ADAPTER

ZN084 - 24V/4A DC POWER ADAPTER

ZN086 - MC9S12 ADAPTER FOR ABPROG

ZN181 - CAN Gateway Set (contains ZN081, CB601, CB602)

The ZN181 - CAN Gateway Set allows connecting FBS3 modules in Mercedes-Benz trucks between each other in bench setting. This is very useful when working on FBS3 immobilizer-related units which require connectivity to other parts of the vehicle in order to be able to work on them effectively.
This set is used when working with modules on bench for key programming and parts adaptation procedures, even when it is required to work with more than one module.

Functionalities:
- Setting a module to virgin state
- Personalization
- Key programming

Supported vehicles:
All Mercedes-Benz trucks with FBS3 immobilizer system

This set contains the following cables and tools:
- ZN081 - CAN GATEWAY
- CB601 - CAN GATEWAY Connection Cable
- CB602 - TRUCK EZS/EIS Connection Cable
- DC Jac adapter F 5.5x2.1 to M 5.5x2.5
- Fuse - 5A

Using the ZN181 in combination with AVDI, ZN051 Distribution Box, ZN075 IR Adapter and the MN031 license, you can extract EZS password from trucks, as well as learn a key to these vehicles (TA69 key). In addition, the CB603 and CB604 cables will assist you in setting to virgin state and personalization of MCM and TCU modules on bench. When working with 24V truck modules on bench, we strongly recommend the ZN084 24V/4A DC Power adapter

TA30 Abrites DST-AES transponder emulator

The TA30 is a transponder emulator designed to emulate ALL DSTAES transponders where Page 1 is 88, A8 and A9. This allows extended functionality and the ability to program transponders NOT ONLY found in various Toyota vehicles of the latest generation but ALL vehicle types using these transponders, giving the customer the ability to write and lock all pages of the EEPROM as well as write and lock ALL KEYS. Using our software, the customer can also perform TIRIS AES verifying of a AES1 crypto key. The TA30 has been placed in our signature shell giving the product a sleek finish.

This reusable transponder (all previously locked pages can be unlocked) is designed to be programmed with the Abrites TagKeyTool and the PROTAG and will offer a stable working solution for all customers with problems in such vehicles.

TA31 Abrites Extractor

The TA31 Abrites Extractor can be used to obtain the 7th byte in VAG cars. It is also used in some Hyundai/Kia cars to read the PIN code from a working key, together with the TA31 Abrites Extractor. Below you will find two photos of the TA31 Extractor and how it should be properly placed next to the ignition:

TA41 Subaru DST-AES Emulator

The TA41 Subaru DST-AES Emulator has the ability to emulate a Master key and be used as a key for Subaru H type bladed keys. It requires the Abrites ZN002 to be programmed.

It is used together with the SB001 special function in Subaru ALL KEYS LOST H-type bladed (mechanical) key situations.

The TA41 can also be used and programmed as a key to the vehicle and used as one. It covers the functionality of the ZN066 however requires a PROTAG to do so.

Keys produced by Abrites Ltd.

TA10 - ABRITES key (BCM2)-315 Mhz

TA11 - ABRITES key (BCM2)-433Mhz

TA12 - PCB for Mercedes IR key fob case with chrome 433Mhz

TA13 - PCB for Mercedes IR key fob case small size 433Mhz

TA14 - Abrites KEY for all types Mercedes with IR 433Mhz

TA15 -Abrites KEY for all types Mercedes with IR 315Mhz

TA16 - Abrites KEY-CARD for Renault vehicles

TA19 -Abrites Electronic key head (Renault/Dacia)

TA21 - PCB for Mercedes IR key fob case with chrome 315Mhz

TA22 - PCB for Mercedes IR key fob case small size 315Mhz

TA23 - Abrites electronic key head with remote control (Renault/Dacia)

TA24 - Abrites Chrysler/Dodge/Jeep 2013+ Key

TA27 - Megane 3 / Laguna 3 key PCB

TA28 - Clio 4 / Captur KEYLESS key PCB

TA29 - FIAT 500X keyless

TA30 - DST-AES transponder emulator

TA31 - Abrites extractor

TA34 - ABRITES Renault Megane 4/Talisman KEYLESS key

TA35 - ABRITES Renault Clio 4/Captur KEYLESS key

TA36 - Abrites DST 40bit/DST+ 80bit Electronic key head

TA38 - IC Replacement for Alfa Romeo Giulia/Stelvio

TA39 - Renault Megane 4/Talisman keyless key

TA40 - ABRITES Alfa Romeo Giulia/Stelvio key

TA41 - Subaru DST-AES Emulator

TA44 - AUDI BCM2 PCB FOR ORIGINAL KEY SHELL (868 MHZ)

TA46 - AUDI BCM2 PCB FOR ORIGINAL KEY SHELL (433 MHZ)

TA47 - AUDI BCM2 PCB FOR ORIGINAL KEY SHELL (315 MHZ)

TA48 -ABRITES keyless key for Audi BCM2 vehicles (868 MHz)

TA49 -ABRITES keyless key for Audi BCM2 vehicles (433 MHz)

TA50 - ABRITES keyless key for Audi BCM2 vehicles (315 MHz)

TA51 - Abrites Megamos AES emulator (ID88)

TA52 - Universal BGA PCB for Mercedes-Benz vehicles (FBS3)

TA54 - Abrites key for JLR

TA56 - ABRITES KEY FOR JLR (315 MHZ)

TA57 - ABRITES JLR KEY FOR 2018+ VEHICLES (433 MHZ)

TA58 - ABRITES JLR KEY FOR 2018+ VEHICLES (315 MHZ)

TA59 - Volkswagen Touareg keyless key (868 MHz)

TA60 - Volkswagen Touareg key- (868 MHz)

TA62 - ABRITES JLR KEY FOR 2020+ VEHICLES (433 MHZ)

TA63 - ABRITES JLR KEY FOR 2020+ VEHICLES (315 MHZ)

TA64 - ABRITES HITAG-AES Emulator

TA65 - RENAULT CLIO V KEYLESS KEY

TA66 - Abrites Key for 2018+ JLR vehicles (433 MHz)

TA67 - Abrites Key for 2018+ JLR vehicles (315 MHz)

TA68 - Abrites DST-AES transponder emulator

TA69 - ABRITES infra-red Key for Mercedes-Benz trucks

TA70 - Key for FCA vehicles (Atmel-type)

TA71 – BA Type key for Toyota vehicles

You can find more information about the Abrites' keys either in our website https://abrites.com/ or in our online store at https://abrites.com/shop

Emulators and Filters:

EM001 - ABRITES ESL EMULATOR FOR MERCEDES

EM002 - ABRITES ESL EMULATOR FOR RENAULT

EM003 - IMMO PARTS EMULATOR FOR VAG

EM004 EMULATOR – VIDEO IN MOTION CAN FILTER 125K (W167 W292)

EM005 EMULATOR – VIDEO IN MOTION CAN FILTER 500K (W216 W221)

EM008 EMULATOR – MERCEDES ODOMETER CALIBRATION EMULATOR FOR W204,W205,W212 (FBS3/FBS4)

EM009 EMULATOR – MERCEDES ODOMETER CORRECTION EMULATOR WITH JUMPER CABLE FOR DASH FOR W204/W212 (FBS3/FBS4)

EM010 - RENAULT ESL EMULATOR WITH CLIO IV TYPE CONNECTO

Outdated - now EM018

EM011 - RENAULT ESL EMULATOR WITH
MEGANE IV/TALISMAN TYPE CONNECTOR

EM012 - ABRITES ESL EMULATOR FOR
MERCEDES-BENZ W204/W207/W212

EM014 - ODOMETER CALIBRATION
EMULATOR FOR MERCEDES-BENZ W213

EM015 - JLR ULTRA-WIDE BAND
EMULATOR (FOR CONNECTING
EM015, PLEASE REFER TO THE ABRITES
DIAGNOSTICS FOR JAGUAR/LAND ROVER
USER MANUAL):

EM018 - ODOMETER CALIBRATION WITH
JUMPER CABLE FOR DASH - W204, W212,
W205 (FBS3/FBS4)

85

Abrites Tough Cases:

ATC01 - ABRITES TOUGH CASE - SMALL SIZE

ATC02 - ABRITES TOUGH CASE - MEDIUM SIZE
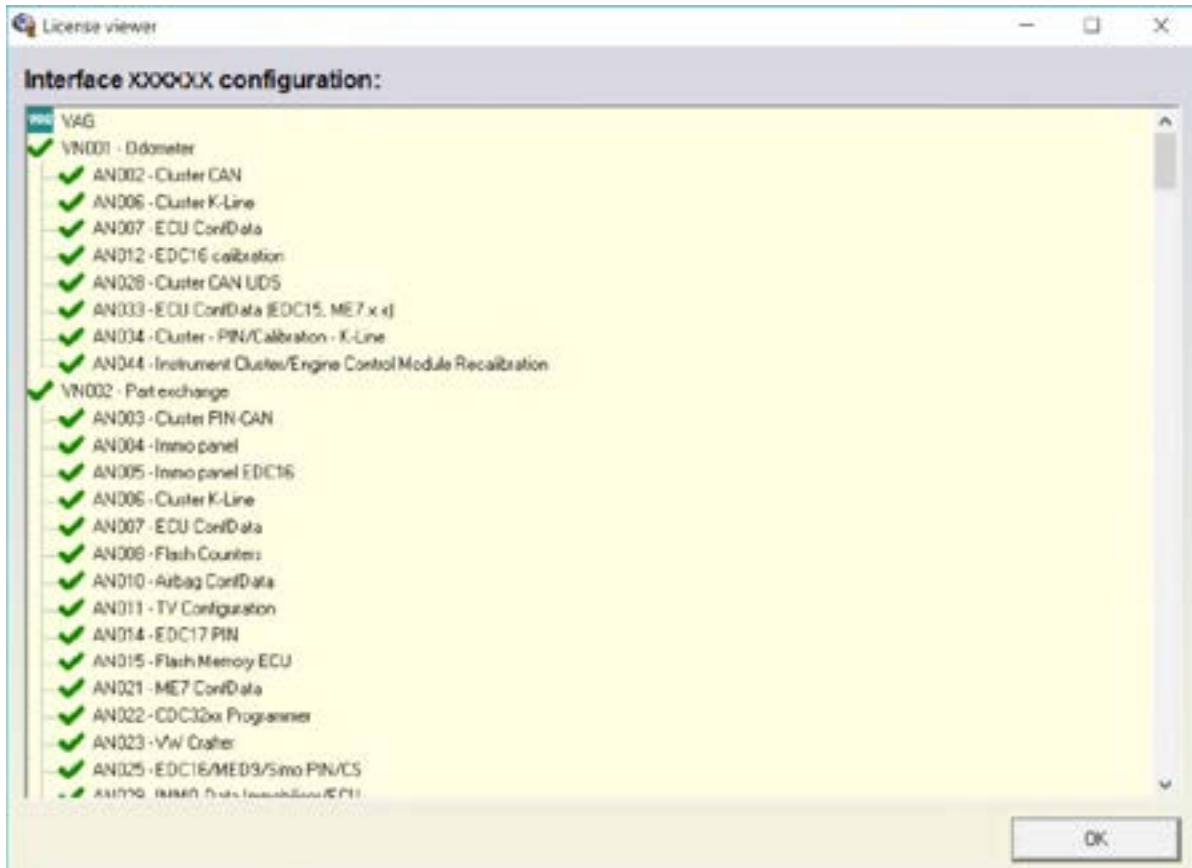

ATC03 - ABRITES TOUGH CASE - LARGE SIZE

Battery Support Unit:

BSU02 - BATTERY SUPPORT UNIT - FLASH-MEM 100

7. License viewer

Using the license viewer you can check your licenses yourself at any time by typing "License viewer" in the Windows search menu.

8. Functionalities of the Basic AVDI software package

Each AVDI includes an Annual Maintenance Subscription (AMS) and Support Plan Service (SPS) for the first year of user, to make sure that you get the full AVDI experience straight away. The AMS allows receiving the latest updates on the AVDI diagnostic software and access to all Abrites Online services, and the SPS guarantees swift and effective technical support from our team of experienced professionals.

Furthermore, you will be able to perform basic diagnostics to all supported brands, some of which are: Audi, Volkswagen, Seat, Skoda, Bentley, Lamborghini, BMW, MINI, Rolls Royce, Renault, Dacia, Mercedes-Benz, SMART, Mitsubishi, GM, Peugeot, Citroen, Opel/Vauxhall, Porsche, Honda, Ford, Mazda, Jaguar, Land Rover, Toyota, Lexus, Volvo, FIAT, Alfa Romeo, Lancia, Jeep, Subaru, Nissan, Infiniti, Chrysler, Dodge, Kia, Hyundai, Suzuki, Daihatsu, DAF, Aprilia, BMW, Bombardier Recreational Products and others.

The basic diagnostics that can be performed to all brands listed above are as follows:
- Complete vehicle scan
- Module identification – see all modules in the vehicle, complete with VIN and part numbers (where applicable)
- Reading and clearing diagnostic trouble codes (DTCs)
- Live data display – see live data from the sensors in the vehicle in real time
- Actuator testing – identify any possible issues in the car by performing actuator tests

The basic AVDI software package offers a range of dynamic functionalities that are continuously evolving. We are committed to enhancing your experience by regularly introducing new features and seamlessly integrating additional licenses into the basic package. This constant evolution ensures that you receive maximum value from your AVDI usage.

Here are some of the most interesting features included in the basic package:
- Key Learning
- Module Adaptation
- Cluster Calibration
- Coding

and more

See complete list of basic AVDI functionalities HERE

You can find all details about the basic AVDI functionalities in our website abrites.com > section "AVDI", we are constantly adding new features, so make sure you check the full description in the page.
(AVDI website page)