



ABRITES DIAGNOSTICS TAG KEY TOOL

User manual
version 2.4



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.

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

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- 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

Abrates Support Team by email at support@abrites.com.

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List of revisions

| Date | Chapter | Description | Revision |
|------------|---------|---|----------|
| 01.10.2015 | ALL | Total update of the manual. Cloning added | 2.2 |
| 13.09.2017 | 9 | CAS4 Key Preparation update | 2.3 |
| 23.08.2018 | 7 | Added cloning of DST+ (G chip), M48 Fixed key and Temic 8C | 2.4 |

1. Introduction

Congratulations for choosing our product!

PROTAG programmer together with the Abrites TagKeyTool software will allow you to use your Windows based PC as a powerful programmer for transponders and tool for programming of transponder based keys.

The PROTAG programmer is a hardware unit produced by Abrites Ltd. intended for programming of transponders via your AVDI interface. PROTAG programmer should be used with ABRITES software produced by Abrites Ltd. ABRITES is a trade mark of Abrites Ltd.

2. Getting Started

2.1 Scope of the manual

This document describes the software and hardware installation of your transponder programmer named "PROTAG Programmer" and corresponding software named "Abrites Tag KeyTool".
The document is applicable for the transponder programmers from Abrites Ltd. - ZN002.

2.2 Your transponder programmer



2.3 System requirements

Minimum system requirements – Windows Vista+, Pentium 4 with 512 MB RAM USB port with supply 100 mA / 5V +/- 5%

2.4 Advice for using the ProTag programmer

It is very important to keep the ProTag programmer away from any metal objects or metal surfaces. Placing it near metal objects or on metal surfaces will interfere with the field of the programmer and cause errors when working with the programmer.

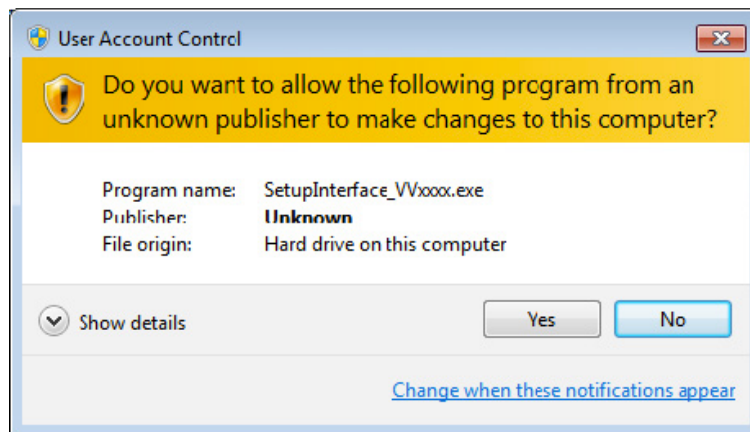
3. Getting Started

We suppose that your AVDI interface is configured and fully working. You can receive an optional separate installation file of your “Abrites Tag KeyTool” software for your AVDI and PROTAG programmer. The software is a windows executable file named ‘SetupTagKeyTool_VVxxxx.exe’ where VVxxxx is your interface identification number.

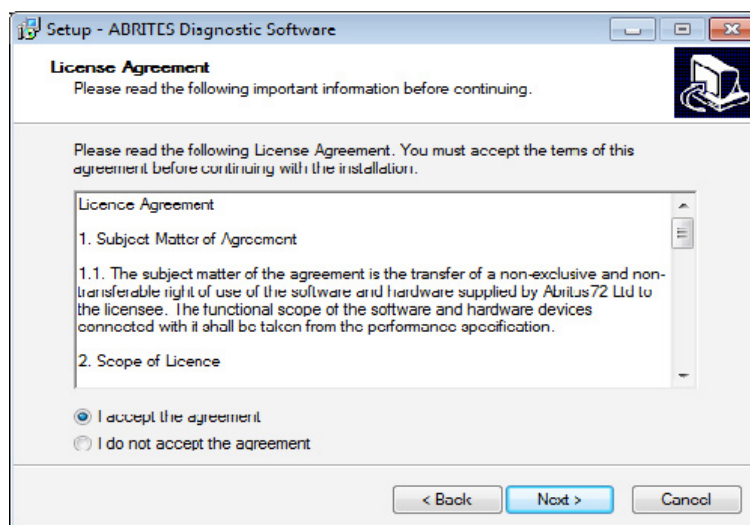
3.1 Software installation steps

Please start the executable file below to initiate the installation procedure and follow the onscreen instructions.

Depending of your operation system and settings you can be asked to confirm starting of installation procedure.



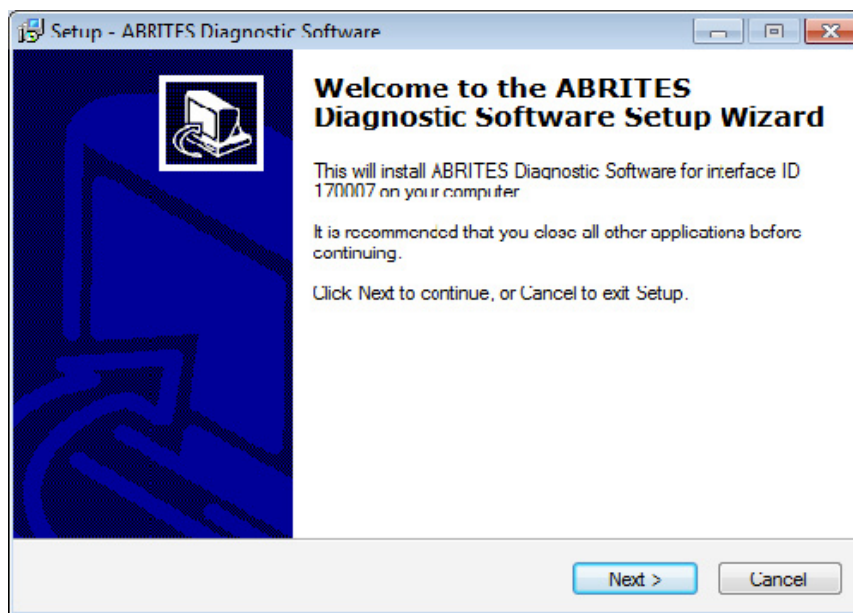
Press the “Next” button to proceed with the installation.



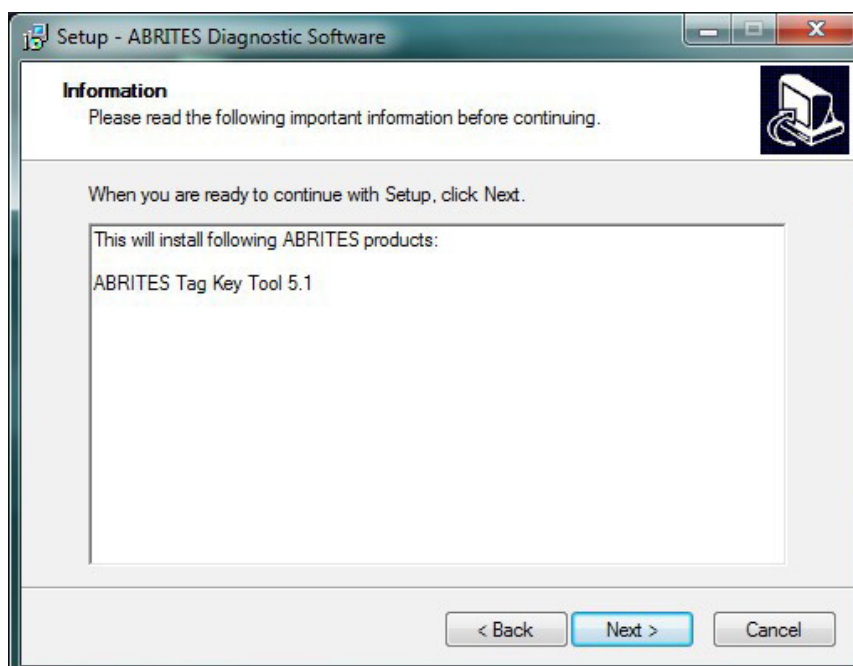
Read the license agreement and select “I accept the agreement” if you are accepting all. Then press the “next” button.

If you do not agree, press cancel to interrupt the installation procedure.

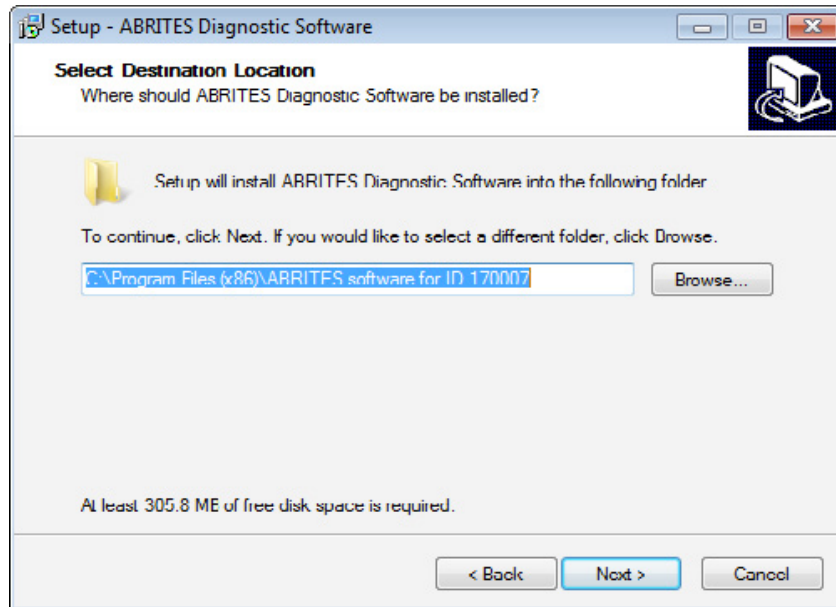
Press the “Next” button to proceed with the installation.



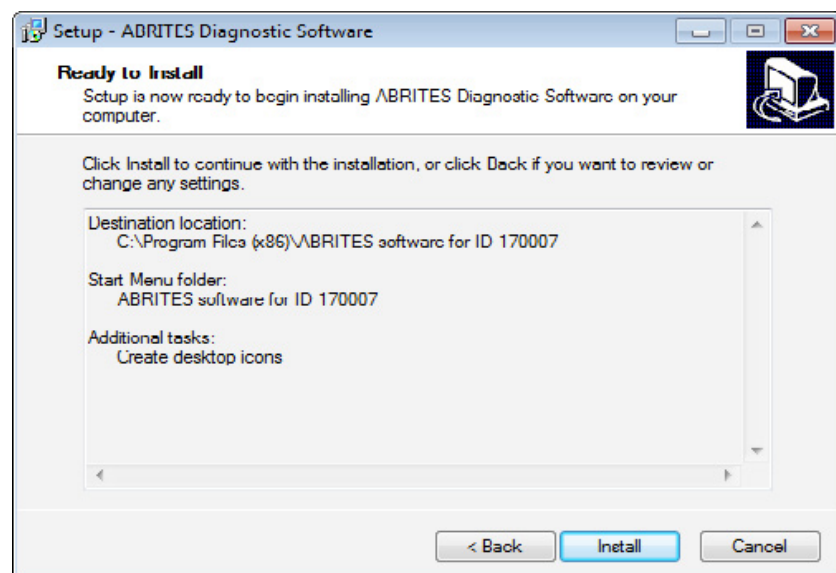
Press the “Next” button to proceed with the installation.



Press the “Next” button to proceed.

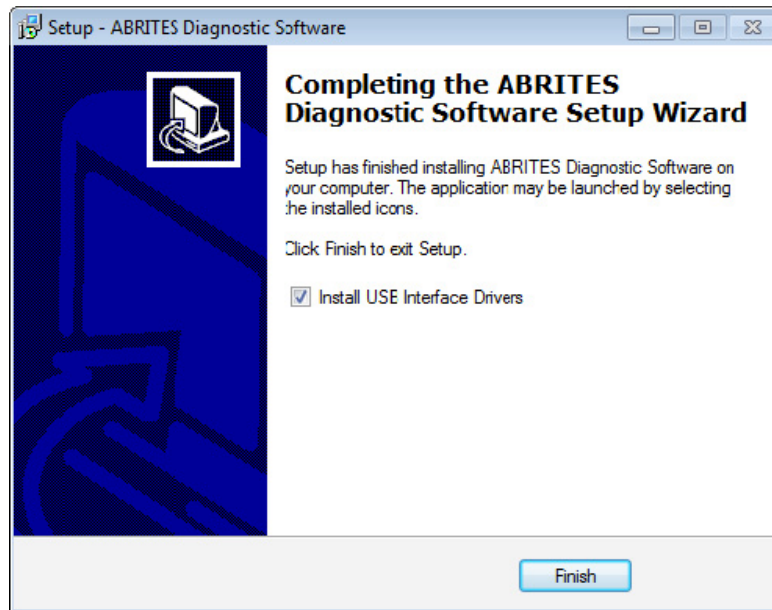


If you do not want desktop icons uncheck the checkbox about creation of icons.
Press “Next” button to proceed.

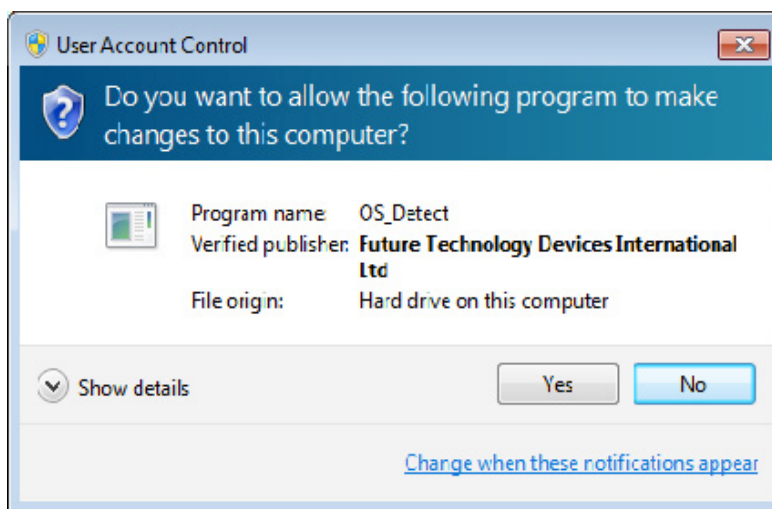


Press “Install” and wait until installation complete.

Be sure that the checkbox about the installation of the interface's USB drivers is set especially if you are installing for the first time. Press "Finish".



Depending on the setting of your operation system you can be asked to confirm installation of USB drivers.
Press "Yes".



Wait until the installation of USB driver finishes.

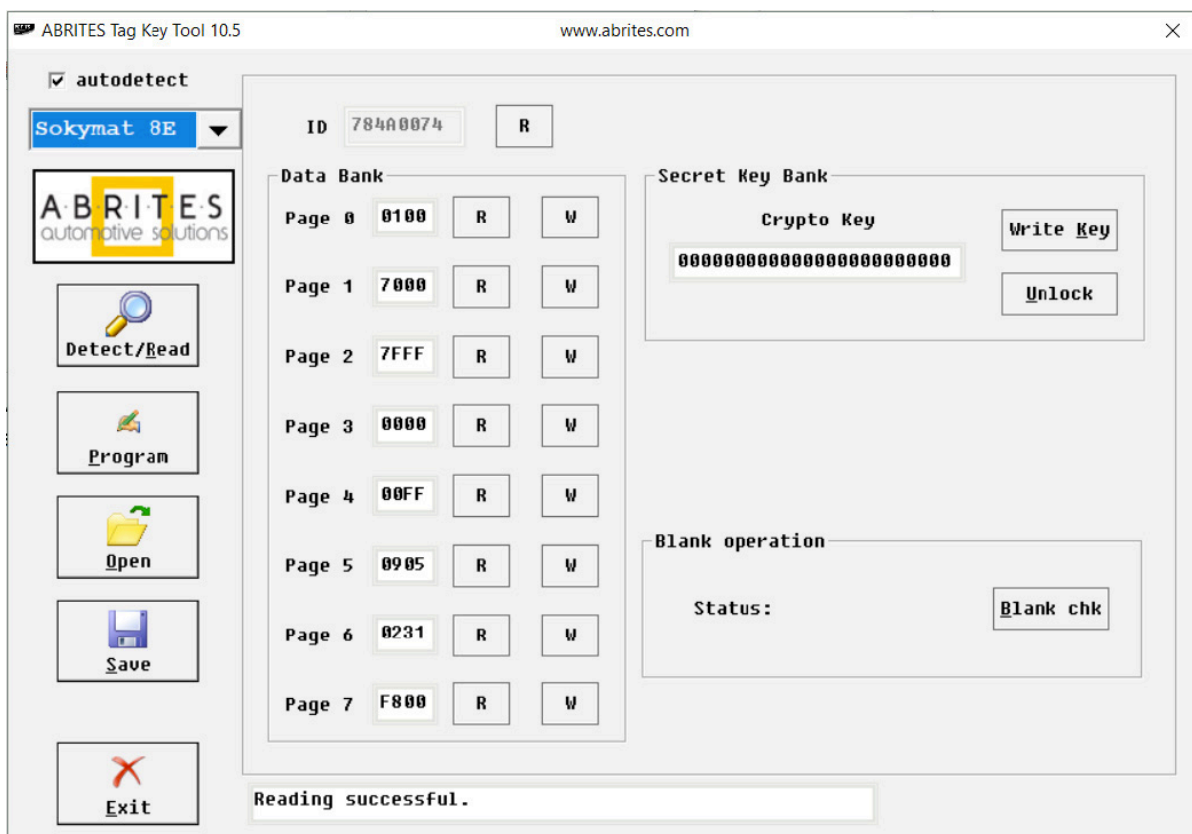
3.2 Connection of the PROTAG programmer to the interface

Once your AVDI interface is ready for work you can connect the PROTAG programmer to the PC through one of the available USB ports of your PC.

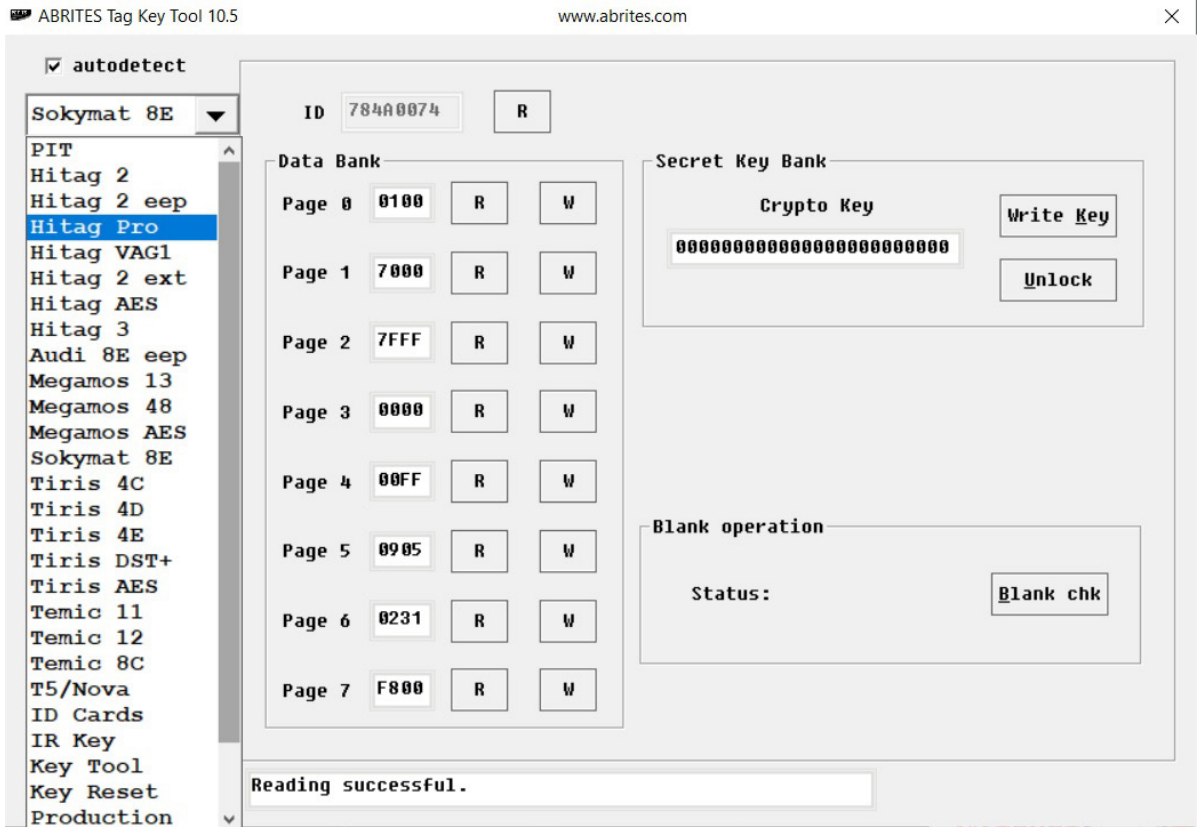
3.3 Starting of the software

When the programmer is ready and connected to the PC you can start some of the applications from your installation package. Each of these applications will notify you that the PROTAG programmer is found and will use PROTAG programmer when it is needed.

If you are using TAG Key Tool application will appear following screen:



From the drop down list you can select some of needed transponders types or utilities which you needed.



You have also the ability to access additional EEPROM memory of the keys, to prepare a key ready for starting of the vehicle using 'Key Tool', to prepare transponders ready for programming by diagnostic equipment - 'Production' and also you can prepare a 'cloning' of a key using function 'Key Cloner'.

4. TagKey tool – working with different transponders

Once an option is selected from the drop down list you will find a screen with options which allows you to read and program the fields of the transponder.

The main buttons named “Read/Detect” and “Program” are intended to read and program the whole memory of the transponder if that is possible.

Many types of transponders are read-only and the button “Program” is used to prepare a compatible transponder which can emulate the target transponder.

Bellow is the emulation list:

Megamos 13 can be emulated with T5 or PIT transponder.

Temic 11/12 can be emulated with T5.

Texas 4C can be emulated with TPX1 (available from version 5.2 of TagKey Tool) .

Texas 4D/4E can be emulated with TPX2.

HITAG-2 can be emulated with TPX3/TPX4 (available from version 5.2 of TagKey Tool) .

The small buttons “R” and “W” are intended to read or program only separate fields from the transponder memory.

When working with transponder please be informed about corresponding transponder specification. Many of the fields from transponder memory can be programmed only once.

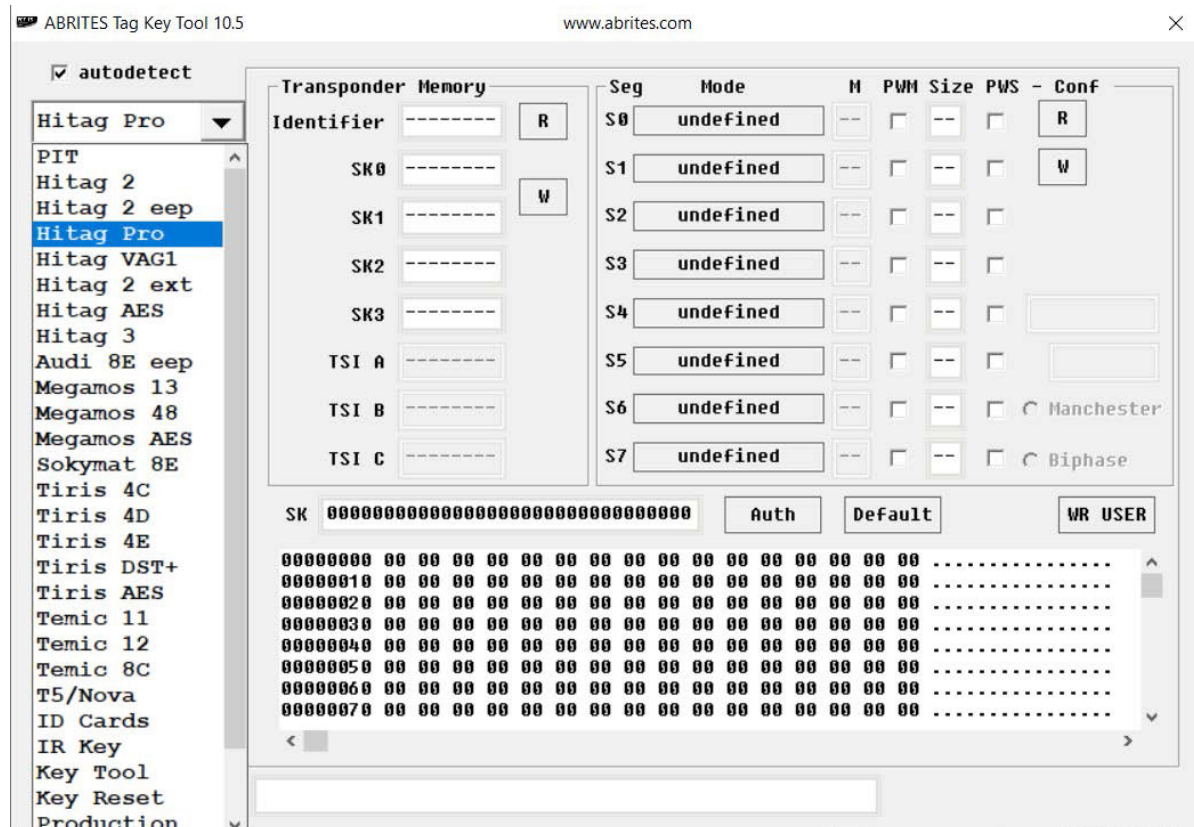
It is very important to place the transponder when you read or program.

IMPORTANT:

Transponders or keys should be kept in the right place in the PROTAG programmer.

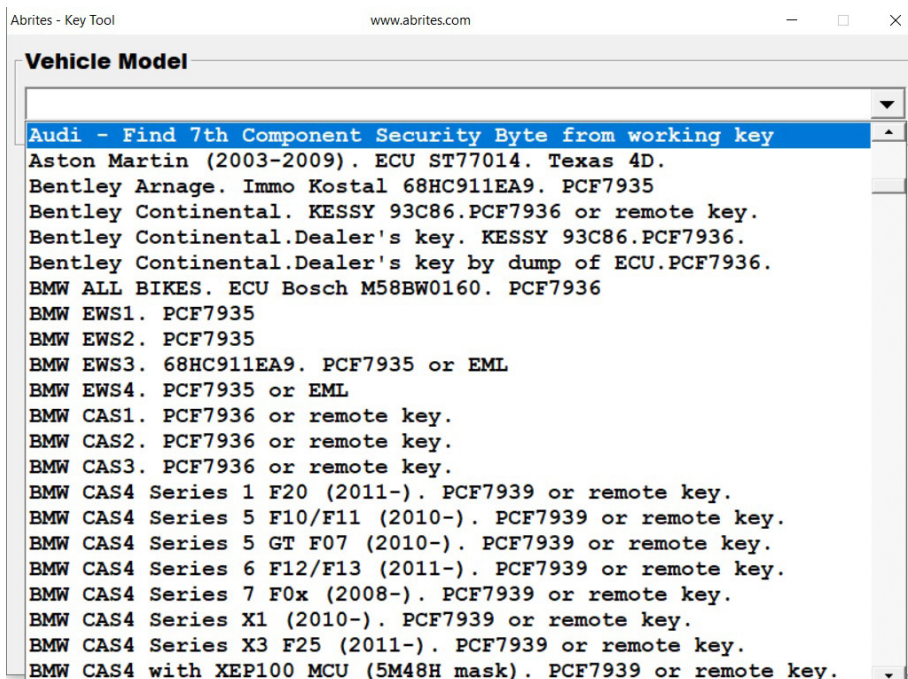
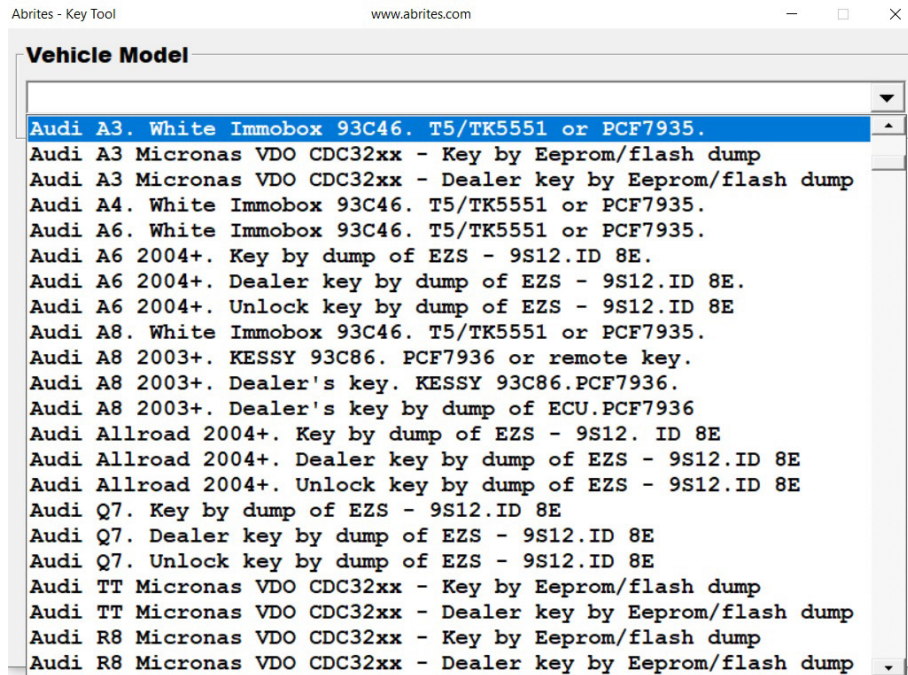
5. TagKey tool – Key tool and preparation of a key by dump of immobilizer system

“Key tool” is a utility intended for preparation of a key when a dump from immobilizer system of the vehicle is present.



From the list of transponders and functions of the main screen you can select this utility.

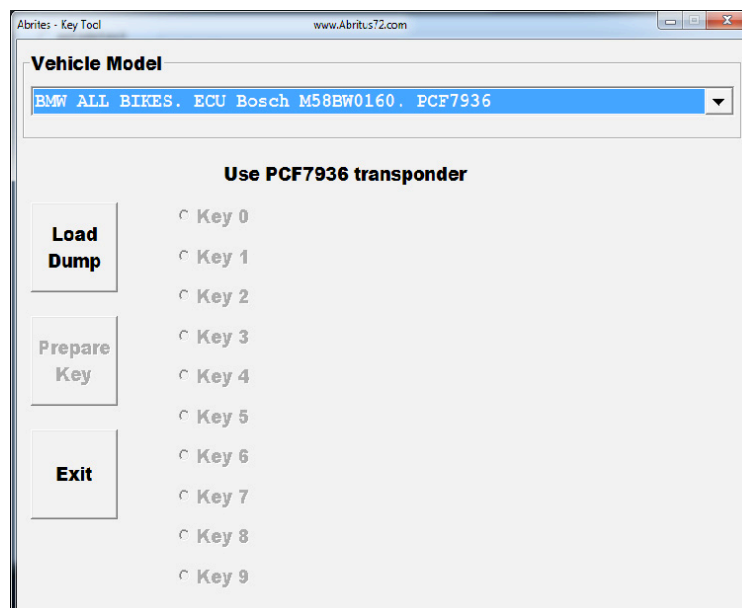
Once you select the “Key tool” option a screen will appear with a drop down list where you can select your model and immobilizer system.



In the list you can see the model, immobilizer module, type of memory where is stored key data and needed transponder/key for programming.

When a model is select your next step should be to load the file containing the immobilizer data (dump).

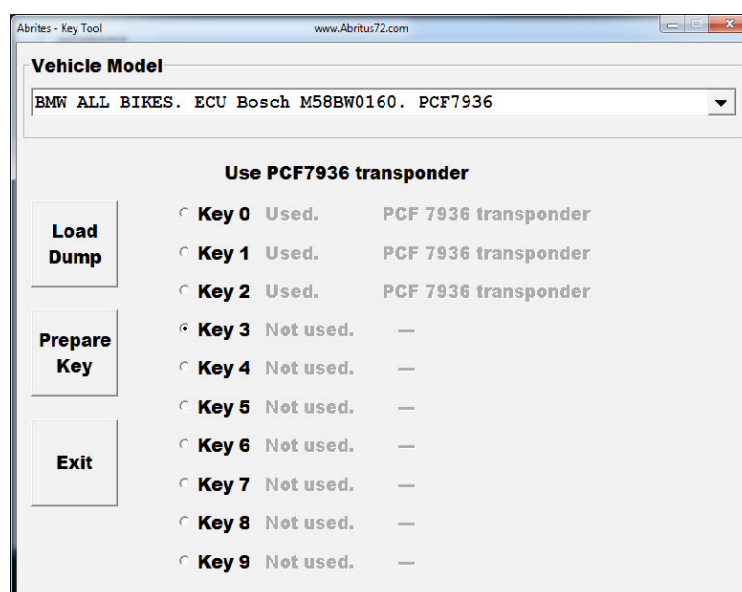
You can load the dump pressing button "Load Dump".



When a dump is loaded you should select the exact key position you want to program.

You will have to place then your transponder/key in the PROTAG programmer and to press the button "Prepare Key".

Once the programming of the transponder is finished, if it is needed, you will be asked for the file name of the modified dump.



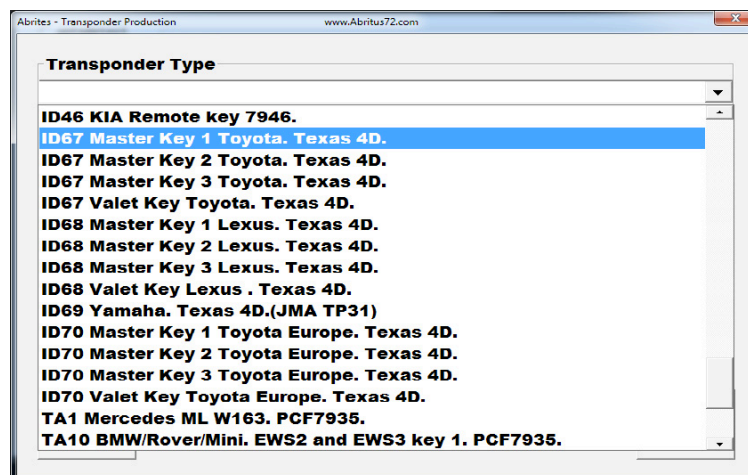
NOTE: Because different programmers can read from the immobilizer dump differently – NORMAL or SWAPED, if after programming the transponder/key does not work, you will need to SWAP the dump and load it back into the software and program a new key or transponder.

6. TagKey tool – Production utility and preparation of a key ready for programming by diagnostic equipment

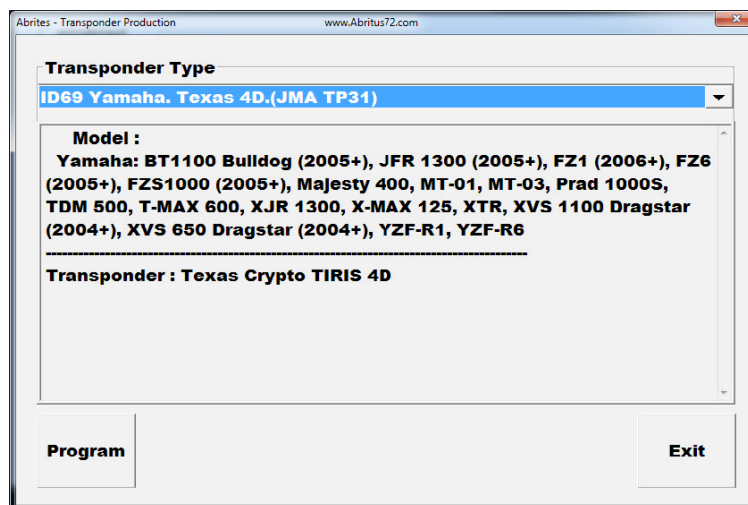
“Production” is a utility intended for preparation of transponders ready for programming by diagnostic equipment.

From the list of transponders and functions of the main screen you can select this utility.

From the screen “Production” utility you have to choose which type of transponder key you want to be prepared. Then simply place your transponder/key on the PROTAG programmer and to press the button “Program”.



When the programming of the transponder finishes, if it is needed, you will be asked for the file name of the modified dump.



Information about the needed transponder is displayed.

7. TagKey tool – Cloning of a key

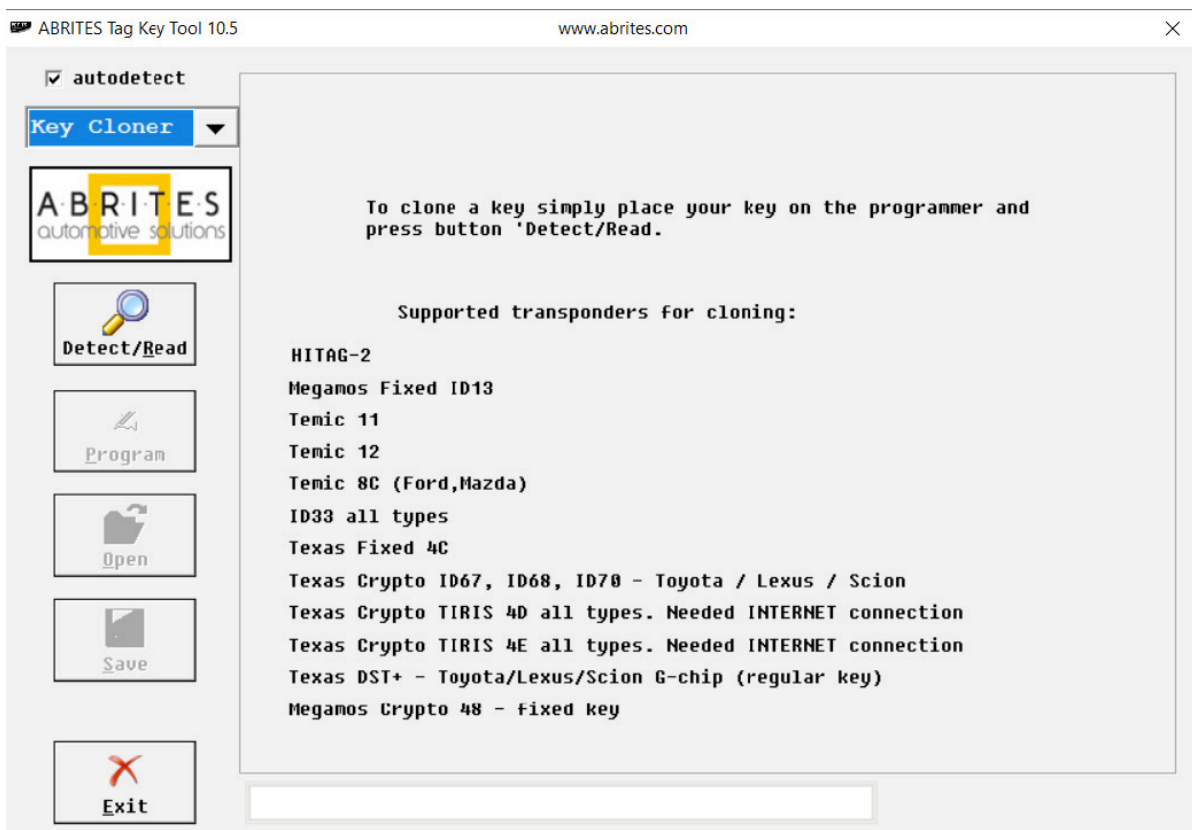
The “Key cloner” function allows you to prepare a clone of some keys. Supported keys/transponders for cloning currently are: **Megamos 13, Temic 11, Temic 12, Toyota/Lexus/Scion Texas TIRIS 4D, all types of ID33, Megamos 48 FIXED KEY, DST+ (G chip) and Temic 8C**

When a key is placed in the PROTAG programmer press the button “Read/Detect”. The PROTAG programmer will read and identify the key and will then inform you what kind of transponder you need to place in the programmer to prepare a cloned transponder.

If your PC is connected to the Internet, you’ve the ability to clone all kind of TIRIS 4D transponders, not only Toyota/Lexus/Scion Texas 4D (ID67, ID68, ID70).

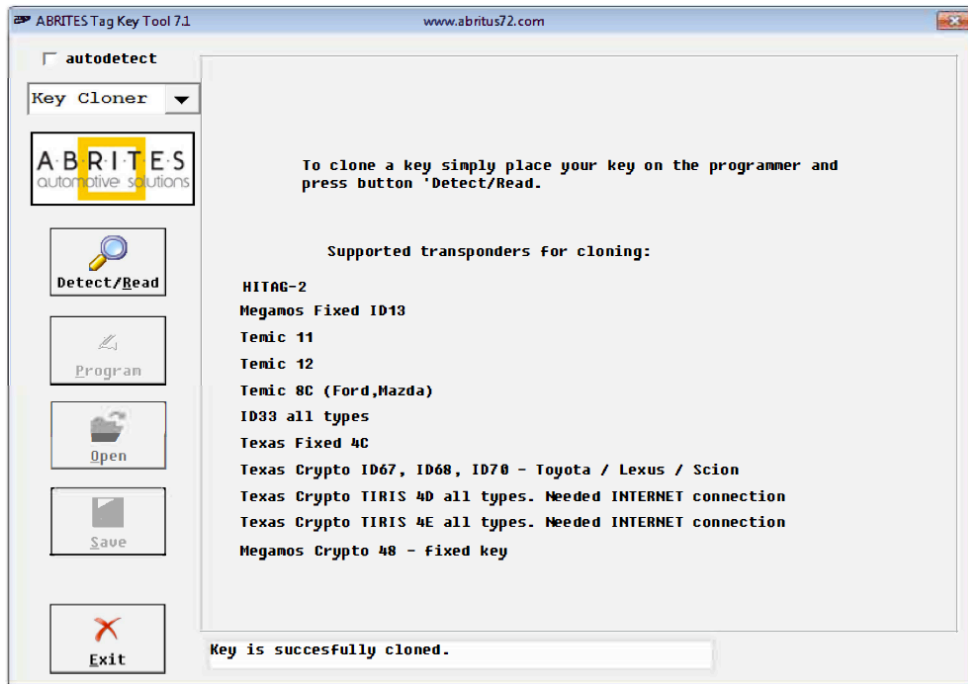
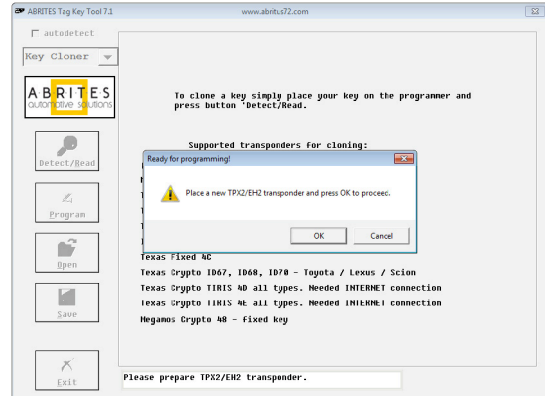
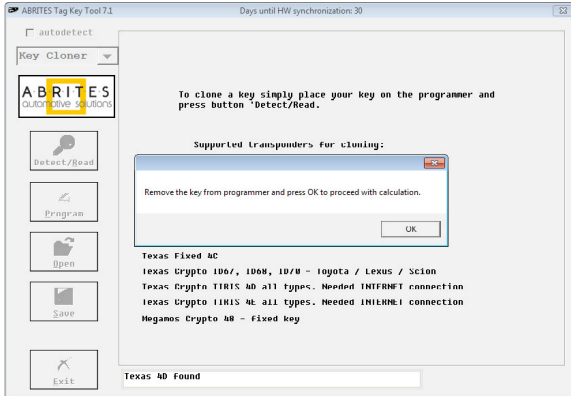
HITAG 2 transponders onto TPX3/ TPX4 cloning.

The Abrites PROTAG programmer now offers an easy cloning of HITAG 2 transponders onto TPX3 and TPX4 transponders. This function requires Internet connection

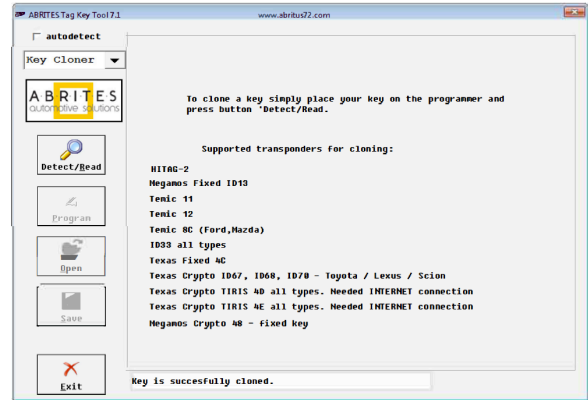
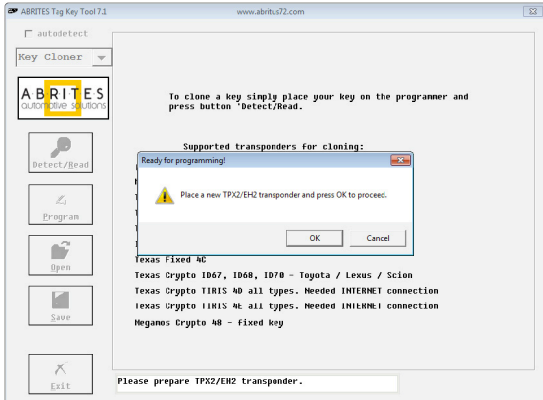
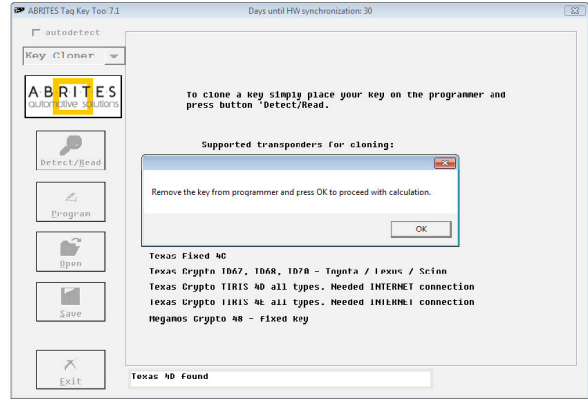
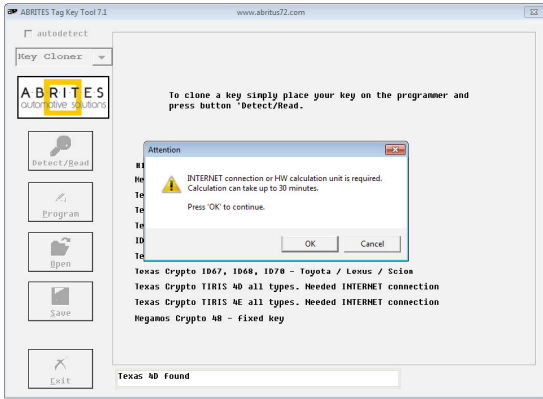


■ Cloning of 4D transponders

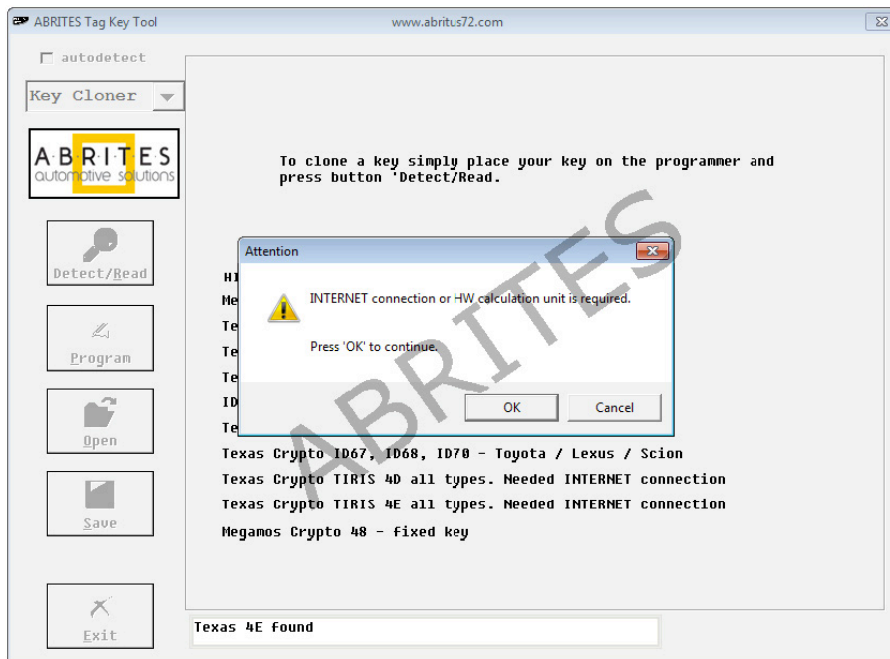
7.1. Offline



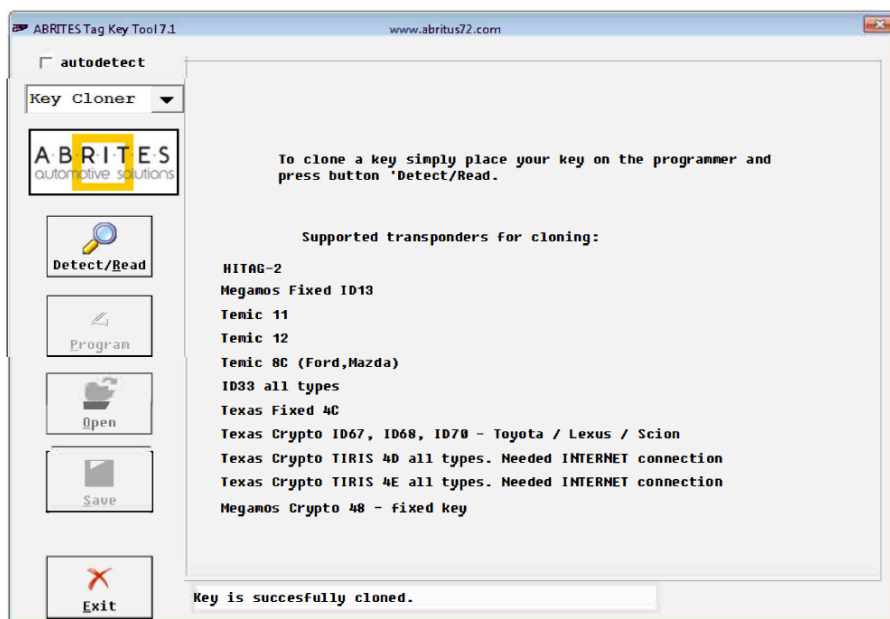
7.2. Online



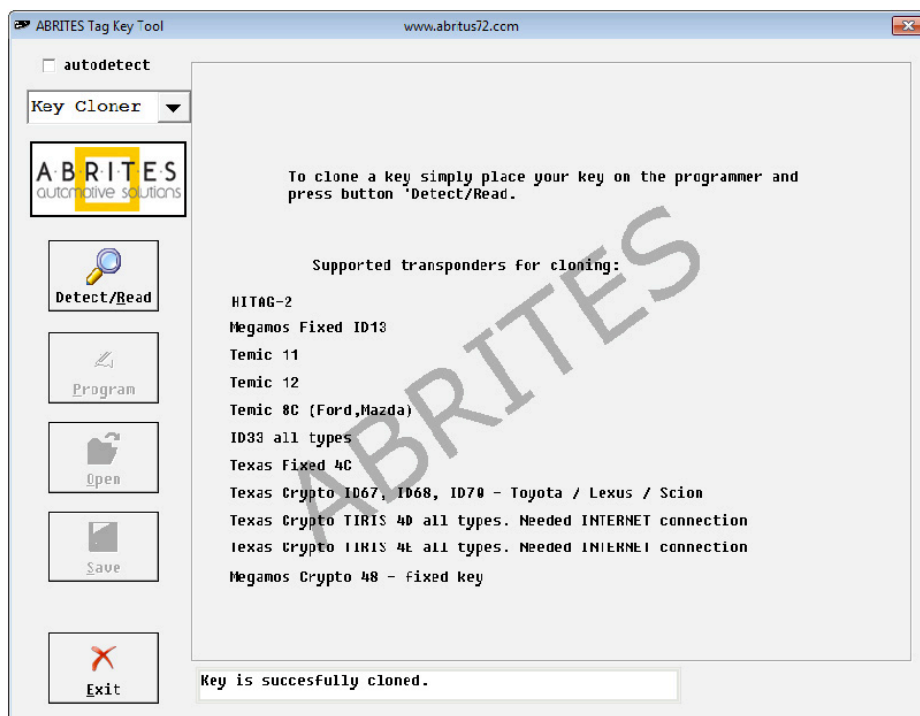
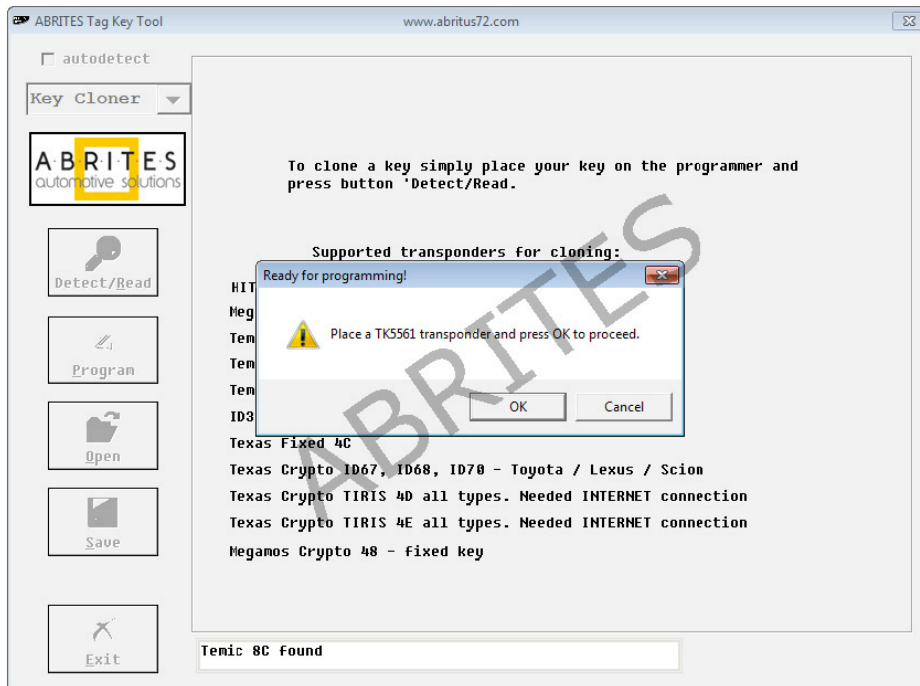
- 4E transponder cloning online:



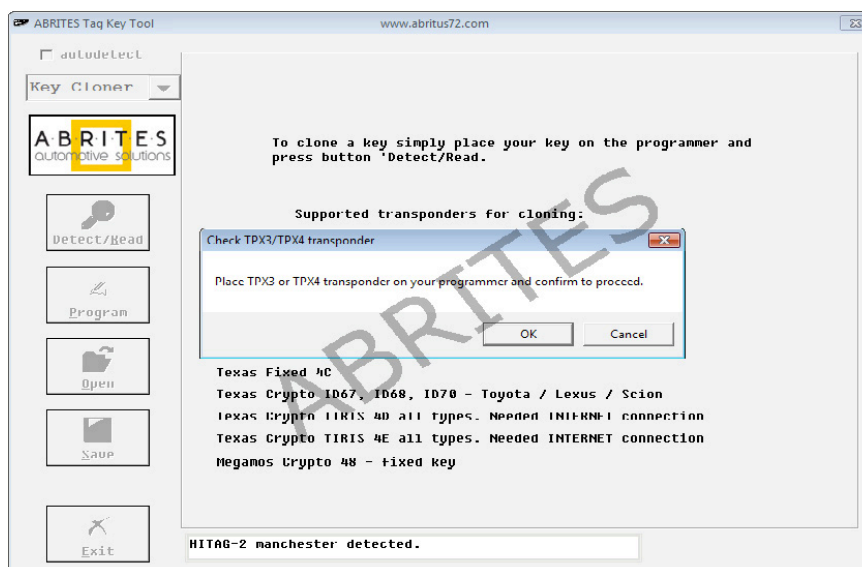
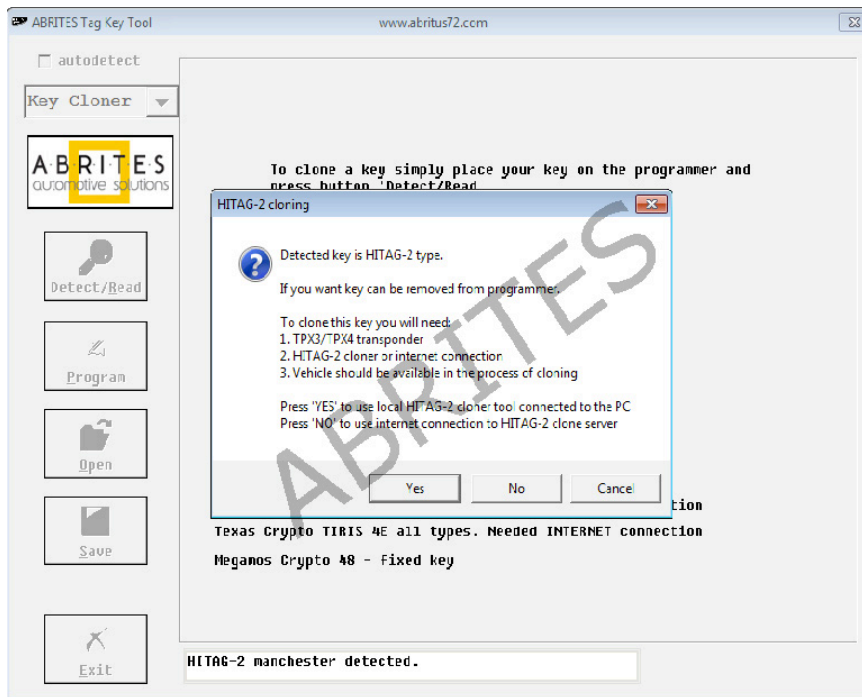
- 5E transponder cloning online:

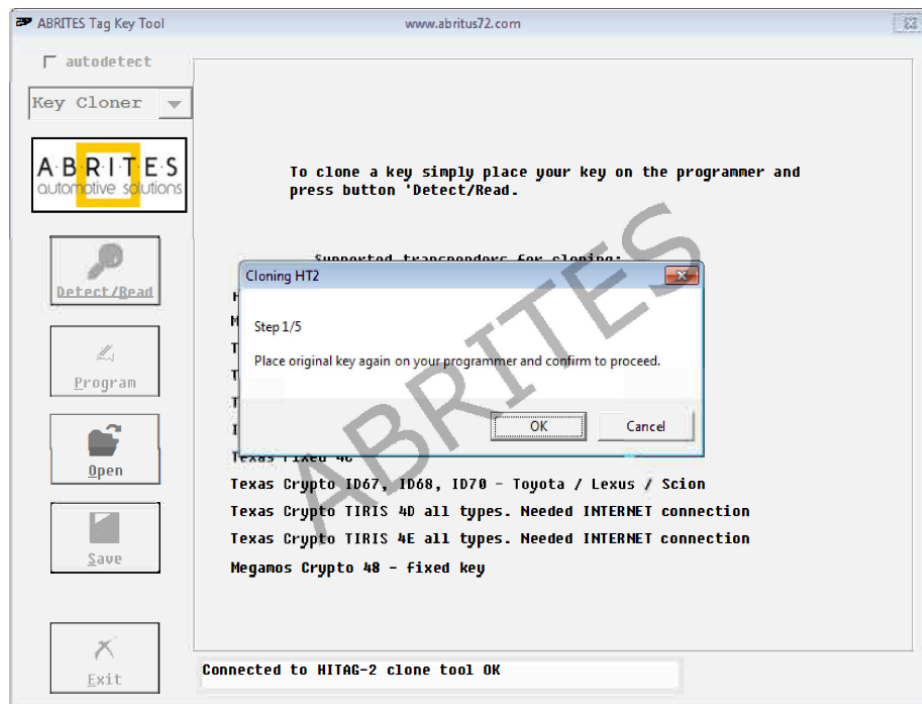
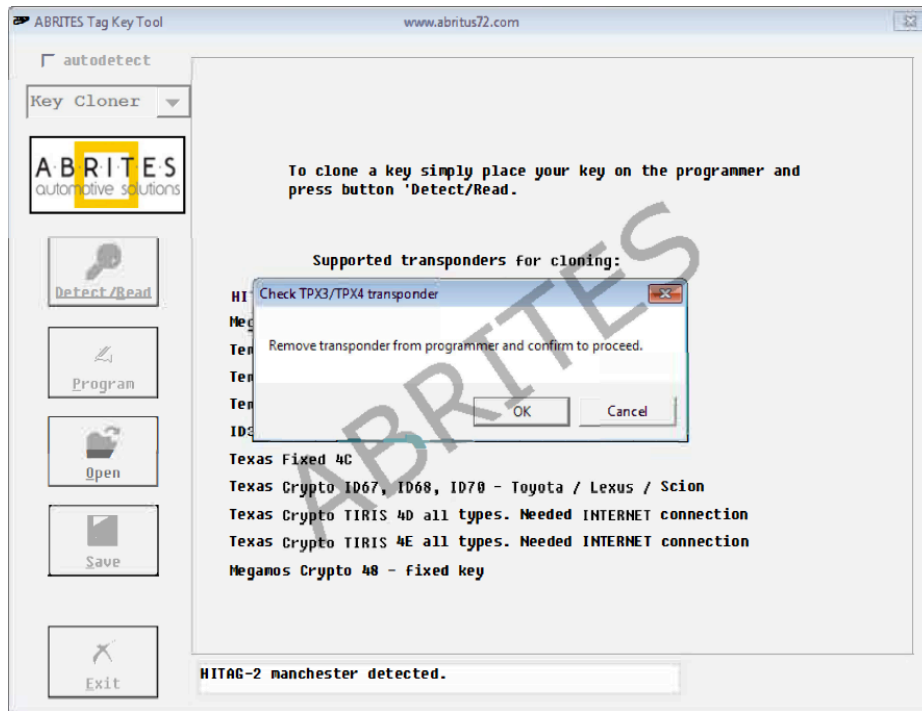


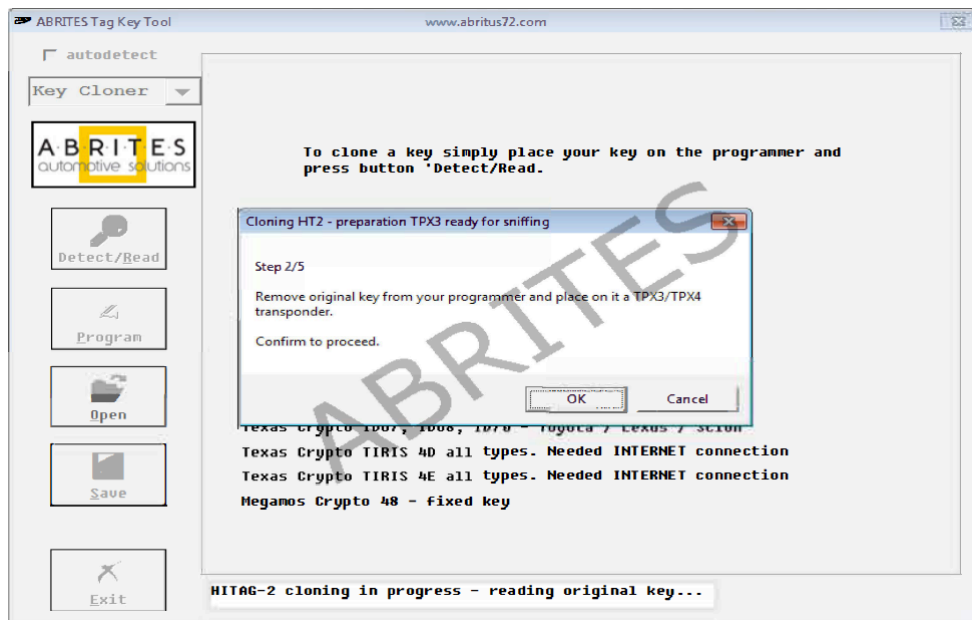
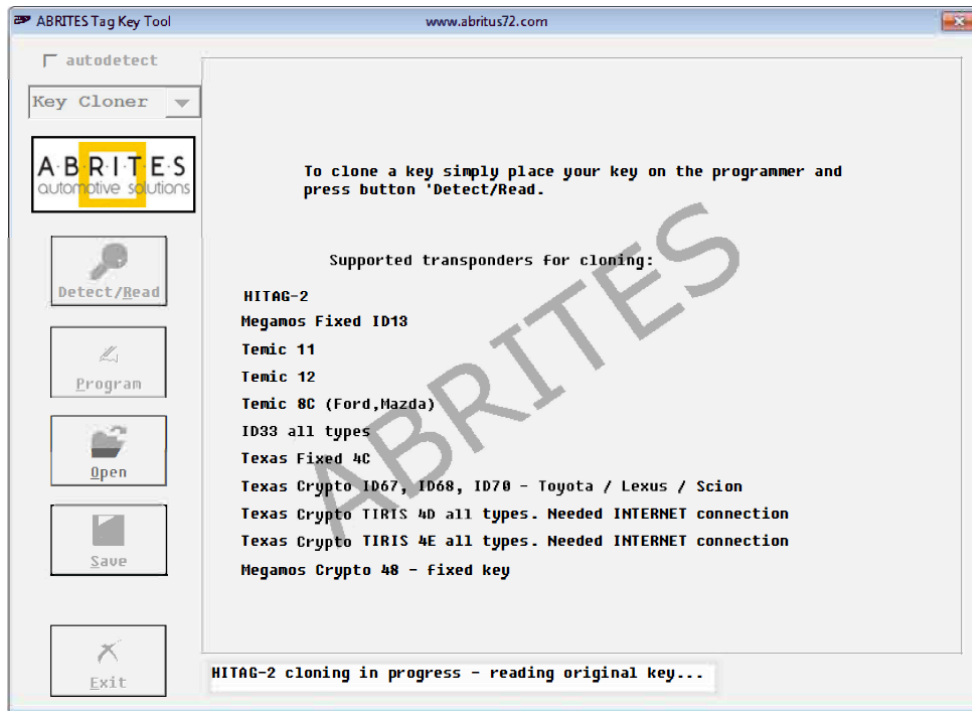
■ 8C transponder cloning:

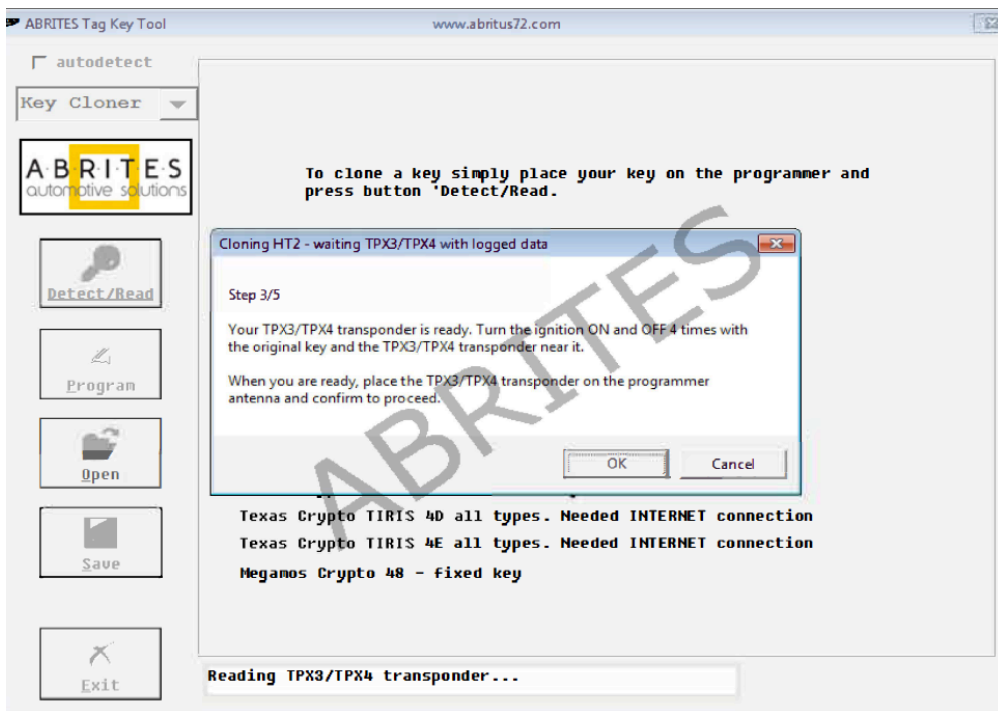
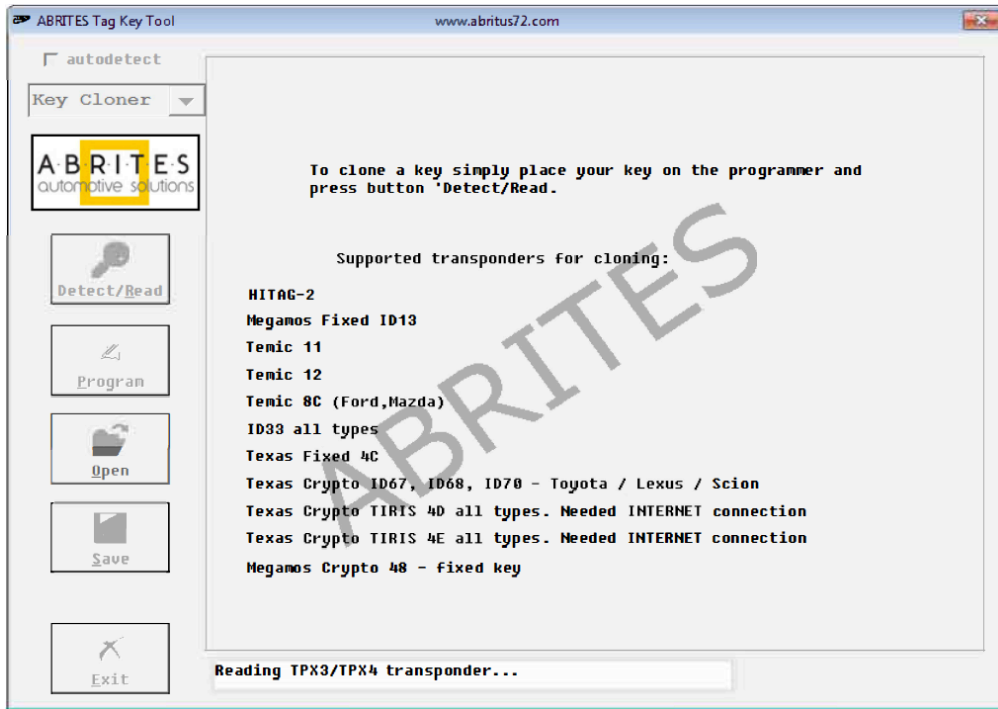


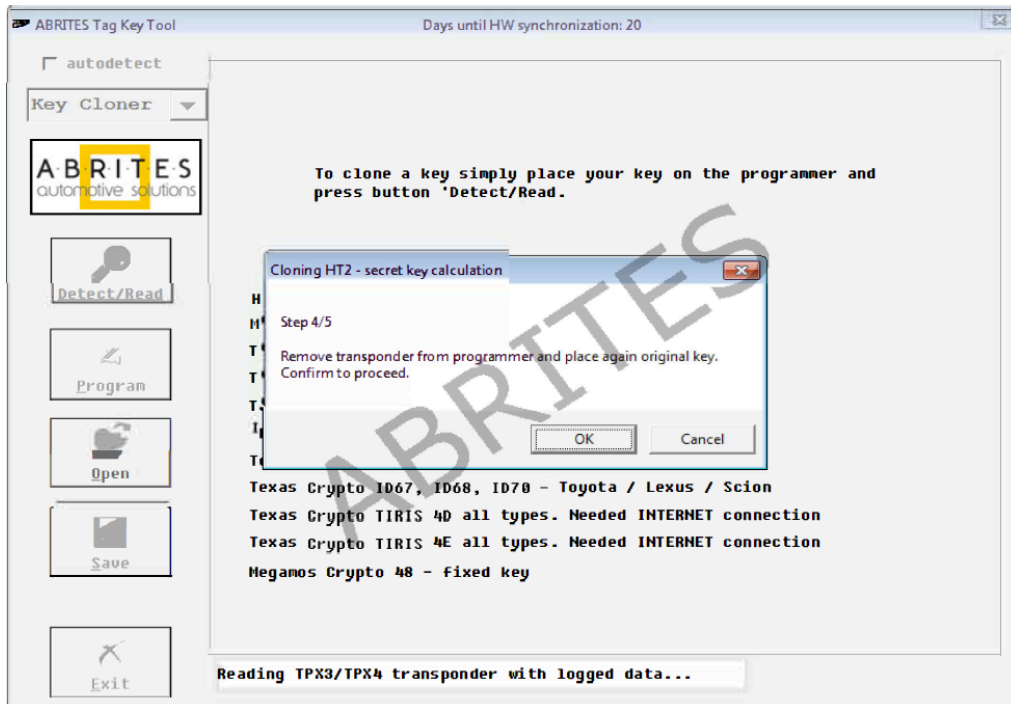
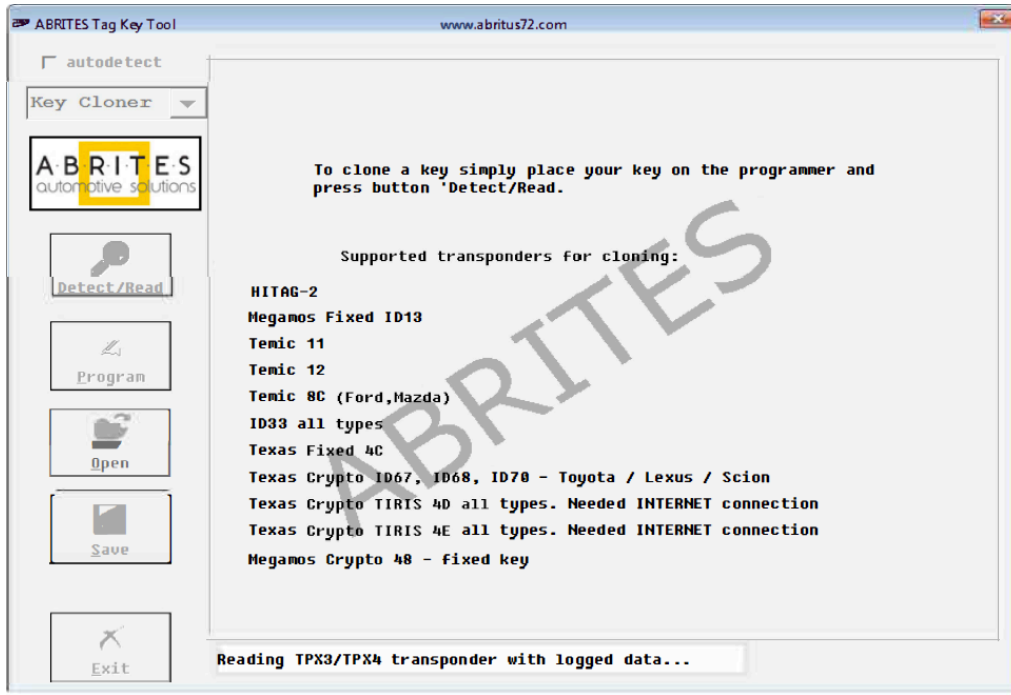
■ Hitag 2 Transponder Cloning

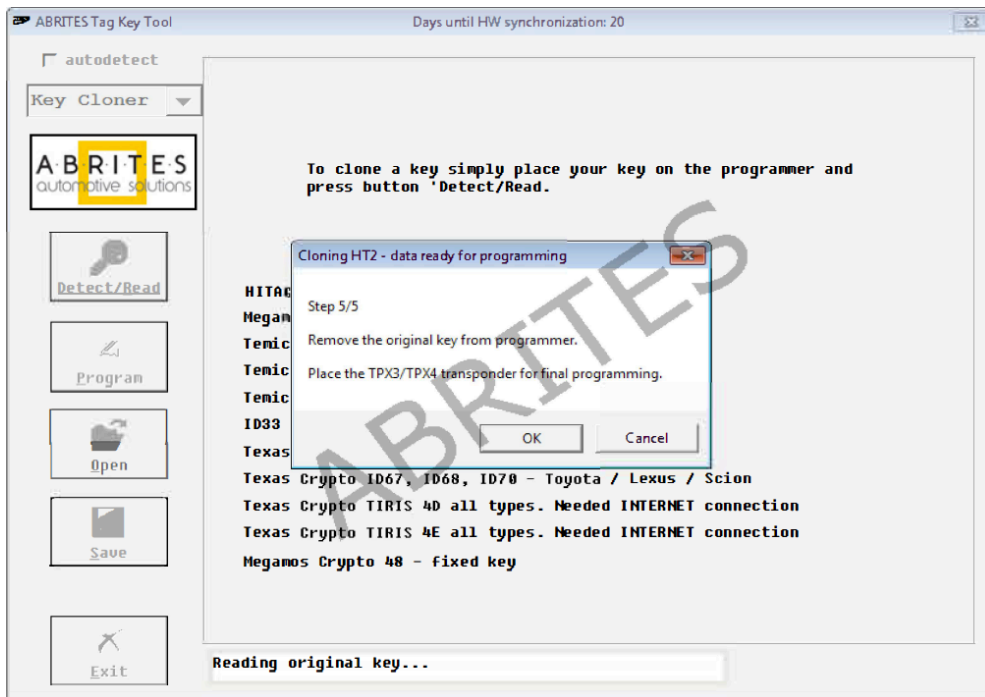
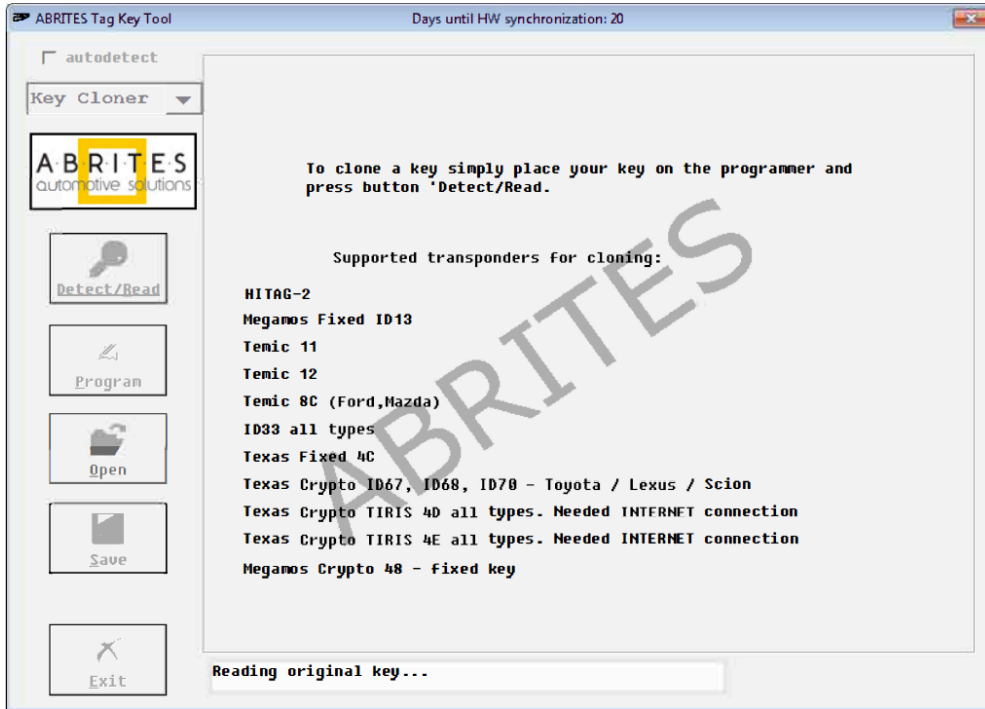


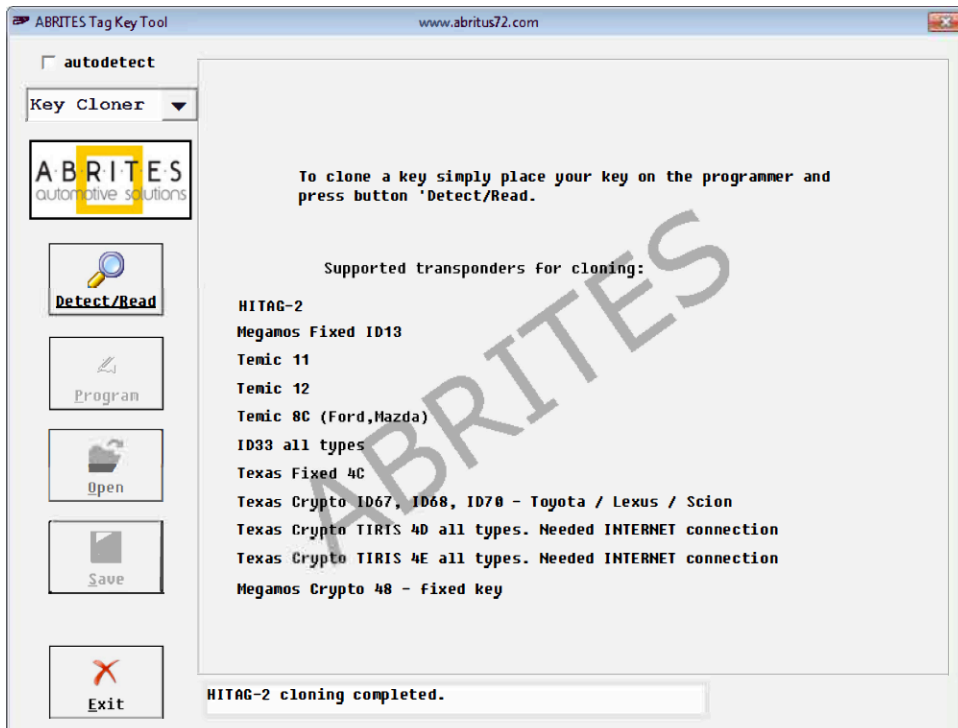
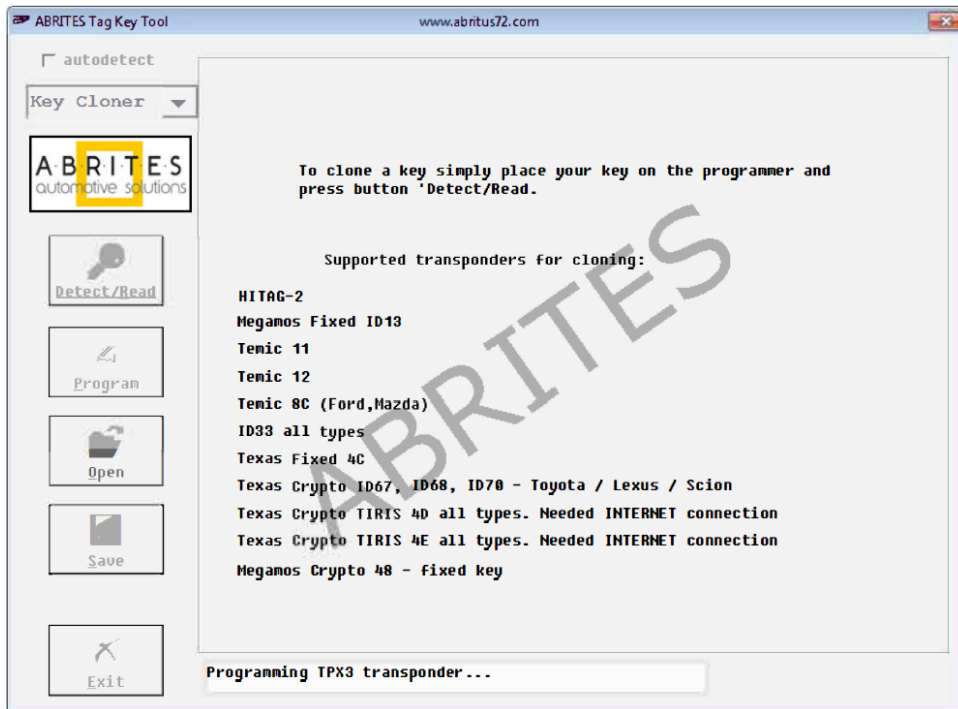






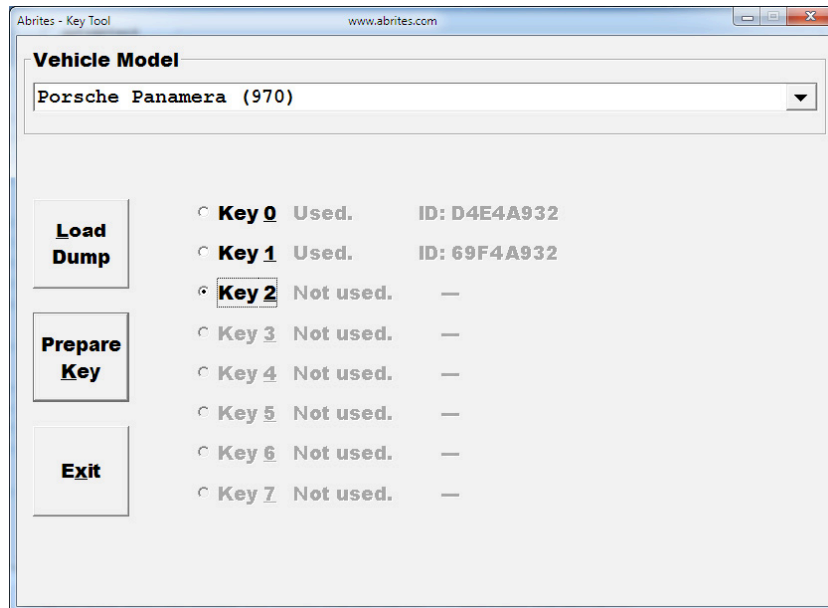




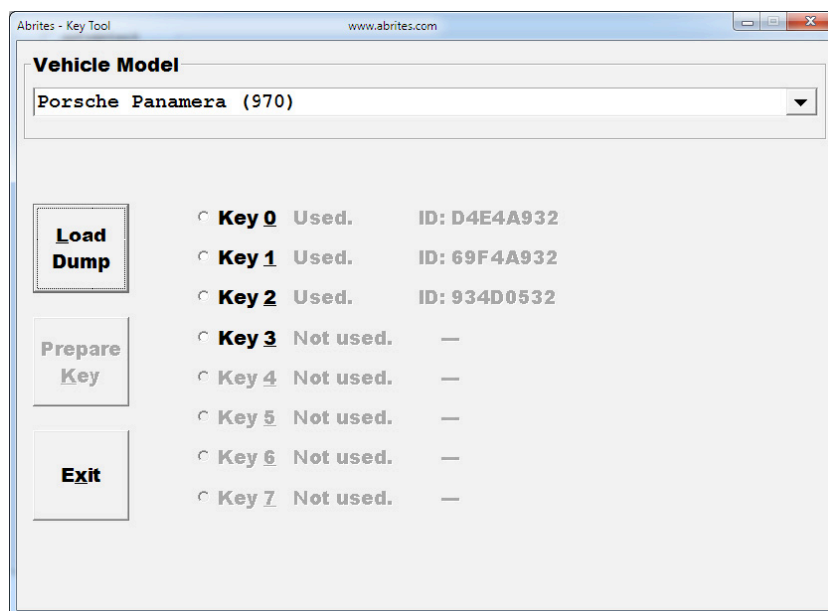


8. Porsche Panamera key by dump

- Read the 9S12XDP512 or 9S12XEP100 EEPROM using a programmer.
- Load the EEPROM dump in the Tag software and choose a position where you would like to write the new key.



- Place a new key in the PROTAG programmer and press the “Prepare key” button.



- The software will modify the dump and the user should save it to a new file.
- The modified dump needs to be written back to the Motorola MCU in the D flash section and the car will start.

9. CAS4 by dump

In order to prepare a CAS 4 key by dump you need to:

- Read the XEP100 MCU's EEPROM and save it to a file.
- Load the file into the TAG key tool and select the correct key position.
- Use PCF7939 transponder or a new remote key.
- Prepare the key.
- You will be asked to either read the working key or enter the DME/DDE ISN. Please use the checkbox option according to the situation (Working key or DME/DDE ISN). Once the option is chosen, please use the "Prepare Key" button to prepare the key for programming.

