TECH100
Diagnostic and Service Tool

User Guide

SD Card

Mini USB

Rubber housing

Display

Up/Down navigation

Left/Right navigation

Back/Esc

OK/ Forward

OBD cable connector

FOREWORD

Dear customer,

Thank you for having chosen one of our tools. We are certain that it will give the utmost satisfaction and be a great help on the job.

Please become fully familiar with the instructions in this user's manual. It should be kept ready to hand for consultation whenever required.

CE COMPLIANCE

Type Designation: **Tech100**
Description/Intended Use: Handheld vehicle diagnostic and service function tool.

Hereby, **Bartec** declares that the product referenced above is in compliance with the essential requirements of **Directive 1999/5/EC**, on the approximation of the laws of the member states relating to **Directive 1999/5/EC**.

LIST OF CONTENTS

IMPORTANT NOTICES

SAFETY DEFINITIONS

All **Danger**, **Warning**, **Important**, and **Note** messages must be followed for your safety. These safety messages are in the following form

⚠️   **DANGER: Means you may risk possible loss of life.**

⚠️   **WARNING: Means you may risk possible bodily harm.**

CAUTION: Means you risk damage to the vehicle or the tool.

These safety messages cover situations Bartec is aware of. Bartec cannot know, evaluate and advise you as to all the possible hazards. You must be certain that any conditions or service procedures encountered do not jeopardize your personal safety.

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DISCLAIMER

All information, illustrations, and specifications contained in this technical instruction manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without obligation to notify any person or organization of such revisions or changes. Further, Bartec shall not be liable for errors contained with the furnishing, performance or use of this material.

SAFETY PRECAUTIONS

Read carefully the installation, operating and maintenance instructions in the Operator's manual.
Do not allow unqualified persons to use this equipment. This will prevent injury to persons and damage to the equipment.
The work place must be dry, sufficiently lit and well ventilated.
Do not forget that breathing carbon monoxide (odourless) can be very dangerous and even fatal.

When working on the vehicle:
- Wear suitable clothing and act in such a way as to prevent industrial accidents.
- Before starting, check to be certain the gear shift is in neutral (or in PARK (P) if the transmission is automatic) and put the handbrake on and check to be sure the wheels are completely locked.
- Do not smoke or use naked flames when working on a vehicle.
- Wear safety glasses to protect your eyes from dirt, dust or metal chips.

Disposing of equipment

- Do not dispose of this equipment as miscellaneous solid waste but arrange to have collected separately.
- The re-use or correct recycling of electronic equipment (EEE) is important in order to protect the environment and human health.
- In accordance with European Directive WEEE 2002/96/EC, special disposal points are available for waste electrical and electronic equipment.
- Public administrators and producers of electrical and electronic equipment are involved in facilitating the re-use and recovery of waste electrical and electronic equipment through these collection activities and use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with appropriate penalties.

Correct use of the tool

- Do not expose the tool to excessive moisture.
- Do not use the tool near sources of heat or polluting emissions (stoves, ovens, etc.).
- Do not drop the tool.
- Do not allow the tool to come into contact with water or other liquids.
- Do not open the tool or attempt to perform maintenance or repair operations on any internal parts.
- You are advised to keep the packaging and to re-use it if the tool is moved to another site.

When using the tool remember:

- Do not subject the tool to magnetic or electric interference.

Reception, maintenance and guarantee:

Inspect the tool when delivered. Damage sustained during shipment is not covered by the guarantee. Bartec will accept no responsibility for material or bodily harm resulting from inappropriate use of the product, failure to maintain it, or incorrect storage conditions.

Bartec provides training for clients desirous of acquiring the knowledge required for the correct use of its products.

Only personnel authorized by Bartec are permitted to make any repairs that may be necessary.

This tool is guaranteed against any manufacturing fault for 12 months as of date of invoice (parts and labour) only if product has been correctly used. Serial number must stay readable and proof of purchase must be retained for presentation upon request.

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KIT COMPONENTS

The **TECH100** kit inside the tool box includes:

- Tech100 tool
- OBD II
- USB cable
- User Manual

**Identifying Kit Components and Features**

BEFORE GETTING STARTED

1. Charging

NOTICE: Only use the OBD or USB cable that is included in the TECH100 tool kit to power this tool.

The Tech100 receives power from a vehicle through OBDII connection; there is no internal battery. During software updates, the tool receives power from a PC or Tablet through the mini USB cable.

It is important not to power the tool through both the mini USB and OBDII cables simultaneously, as the tool may not communicate with the vehicle.

The minimum battery voltage required to power the Tech100 is 9V. If the vehicle's battery voltage drops below this level, the tool may not power on, or display a flashing red/green indicator light.
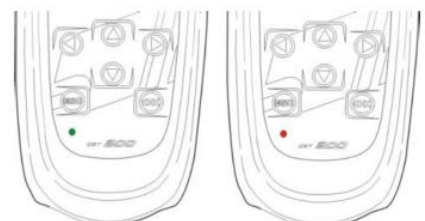
2. Power on-off sequence

Tool powers on automatically when it is connected via OBDII or USB and powers off when connection is disconnected.

It is important not to power the tool through both the mini USB and OBDII cables simultaneously, as the tool may not communicate with the vehicle.

3. TECH100 Suite installation

The Bartec TECH100 must be registered to activate the software before first use. Please register your tool using the Tech100 suite software.
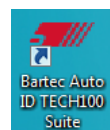
NOTE: An internet connection on your PC is required for this process.

Install the Bartec Tech100 Suite software on your PC or tablet by downloading it from the link on the Tech100 page.

4. Registration

After a successful installation open the TECH100 Suite on your PC.

It can be launched either from the installed desktop shortcut or from the Windows Start menu (search for Tech100 to locate).

Read the Privacy Policy and accept before continuing.
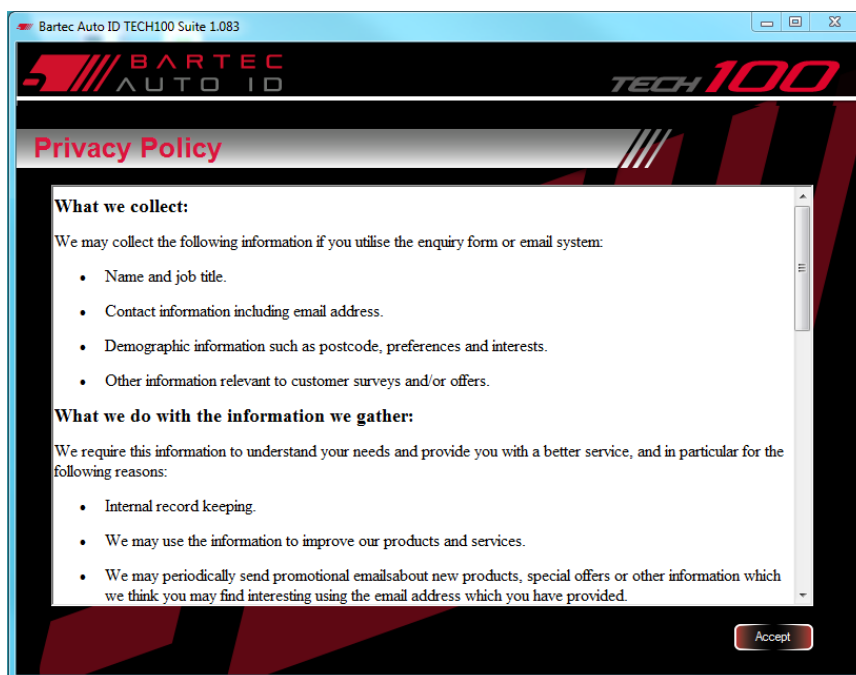
First-time users will be prompted to connect their tool to the PC. If the application has already been closed and re-opened, click the "Tech100 Registration" link to proceed to the Connect prompt. Ensure the device driver is installed correctly and click "Next" to continue.
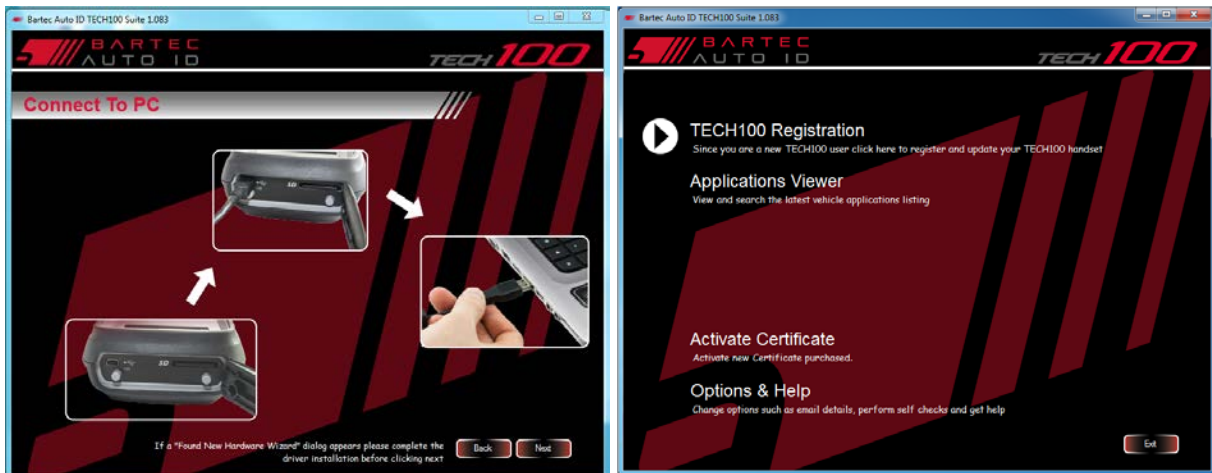
The suite will then detect the Tech100 and check the internet connection.
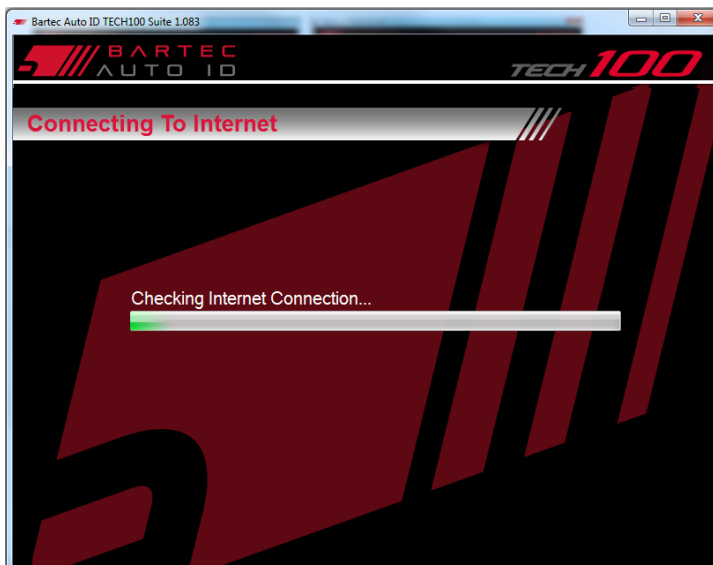
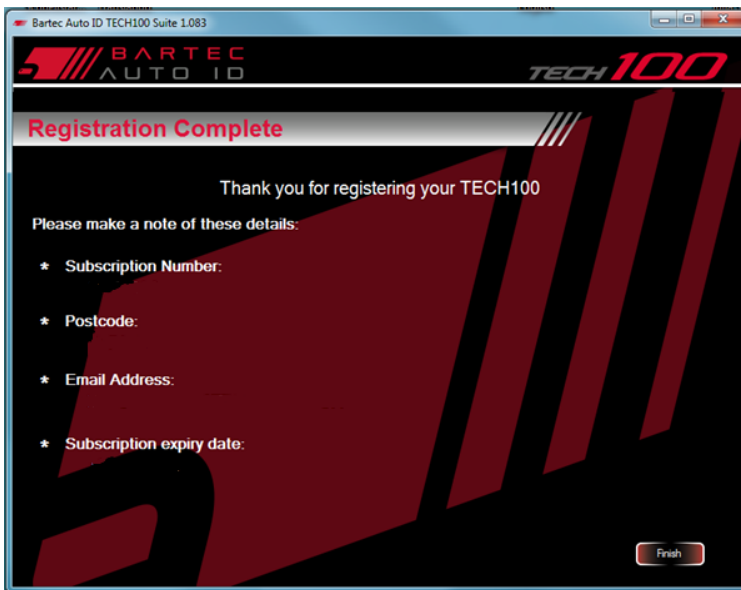Complete the "Product Registration" and make sure filling in all * marked fields. When complete press "Next".
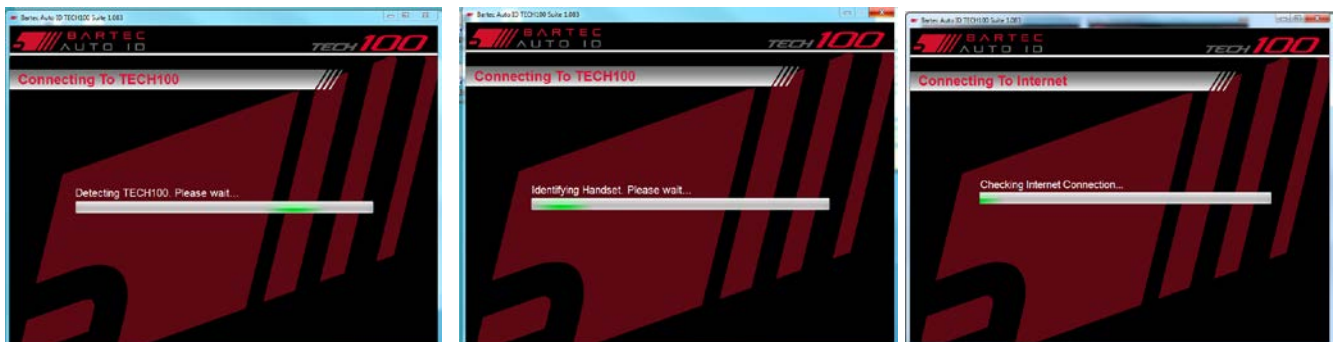
If all required were filled in the "Registration Complete" screen will be displayed. Click "Finish" after making a note of the displayed account details.
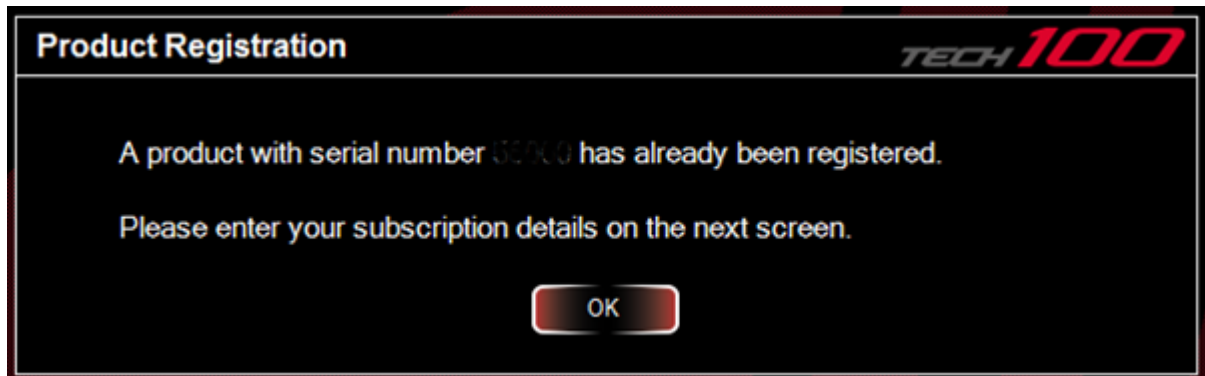

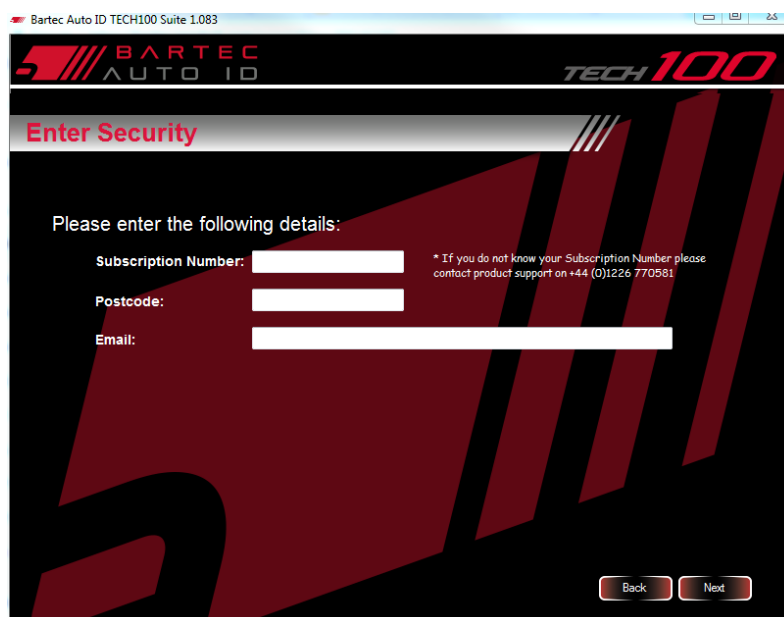Then the suite prompts to "Connect to PC".

The suite will then connect with the tool.

When using a Tech100 which has already been registered on another computer the suite will then display the following:

Click "OK" and enter your account details (subscription number, postcode and email address) you got when first registered your tool on the following screen and click "Next".

Prompt to connect to PC follows. When registration was successful your tool is activated, the suite will continue and search for updates. (See next section)

To register a new tool on your computer/suite delete the registration data in the Options & Help menu and start again.

5. Update

Once the tool is registered the suite gives you the possibility to check for and download the newest updates.

NOTE: An internet connection on your PC is required for this process.
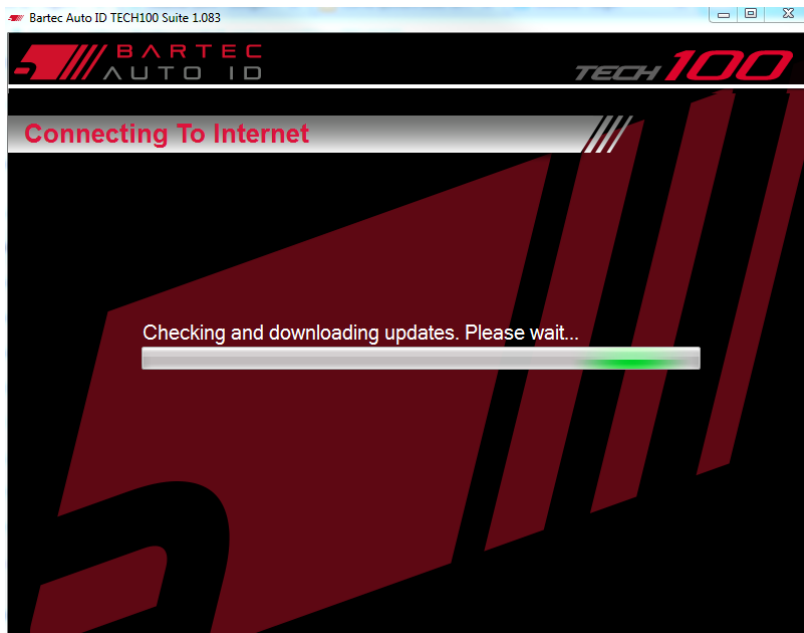
To update your Tech100, open the Tech100 Suite software on your PC and klick "Get Tech100 Updates" link.

When prompted, connect the tool to the PC using the provided mini USB cable, then click Next to proceed.
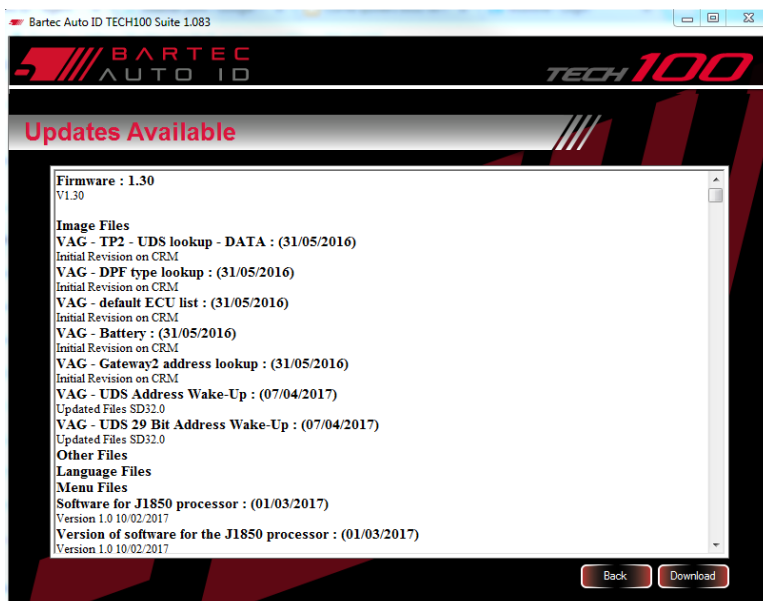

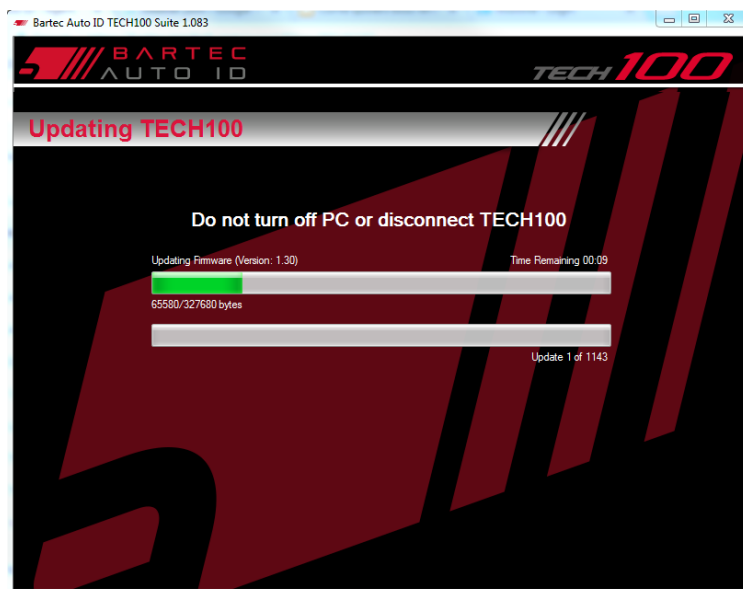The Suite will check for updates.

If no updates are available, the Suite will prompt you accordingly. Click OK to return to the main menu.

If updates are available, they will be displayed. Click Download to continue.

Updates will begin downloading. **Do not turn off the PC or disconnect tool.**

The Suite will prompt accordingly when the update is completed. Click Finish to return to the main menu. It is now safe to disconnect the Tech100 from the PC.
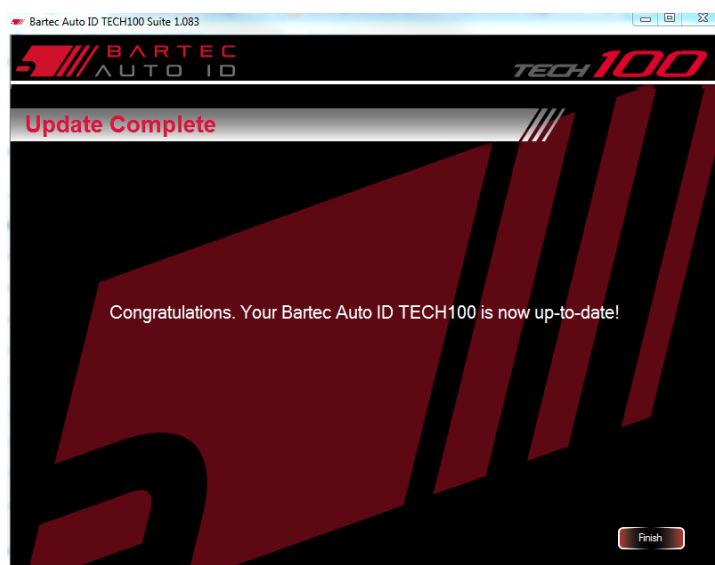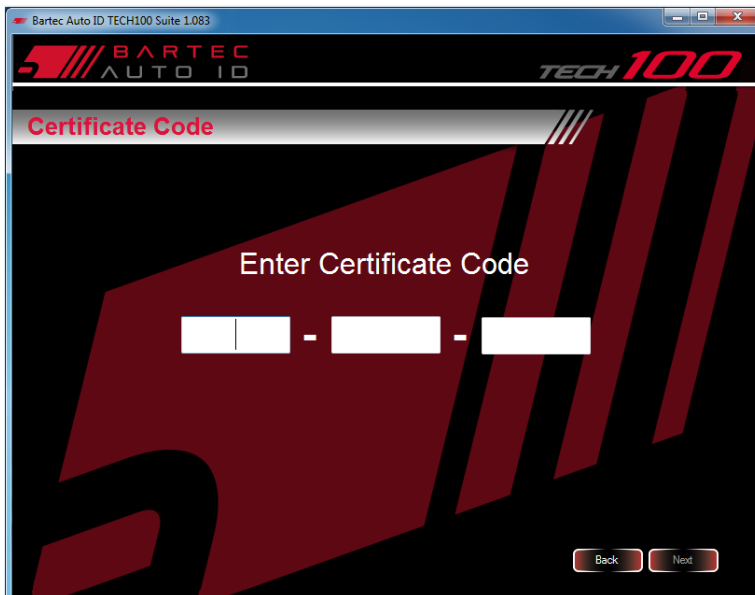

NOTE: If a new update is downloaded to the Tech100, the new version information will not display until the tool is powered off/on post-update.
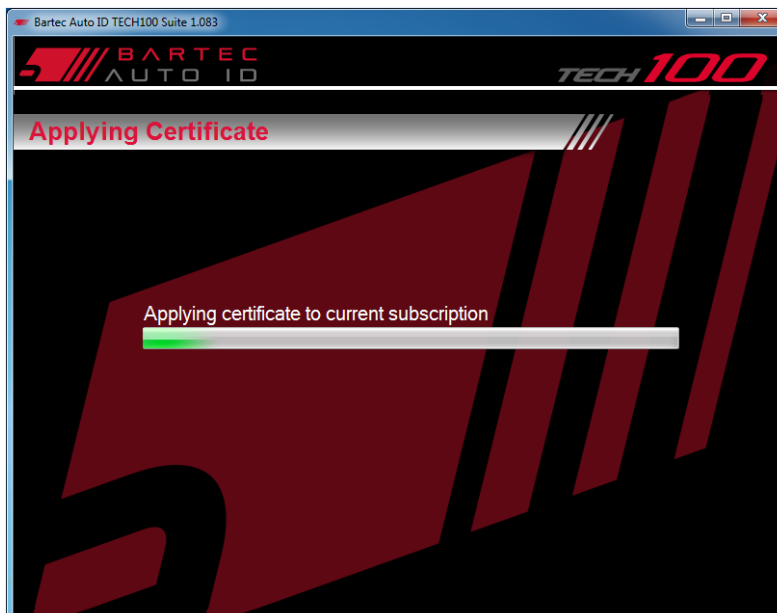
6. Renew your support

If your support is expired you need to buy a new update certificate. Then click on 'Activate Voucher'.
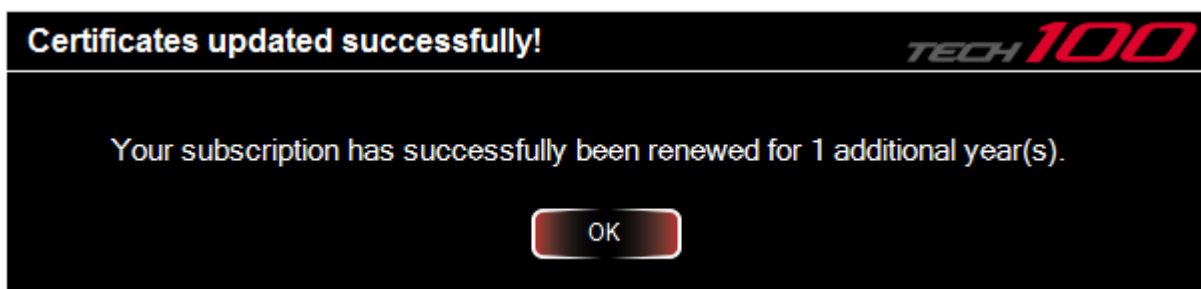
Then enter the purchased code and click 'Next'.

The certificate will then be applied to your subscription.

If your support renewal was successful the following screen will appear and your support is extended for another year.
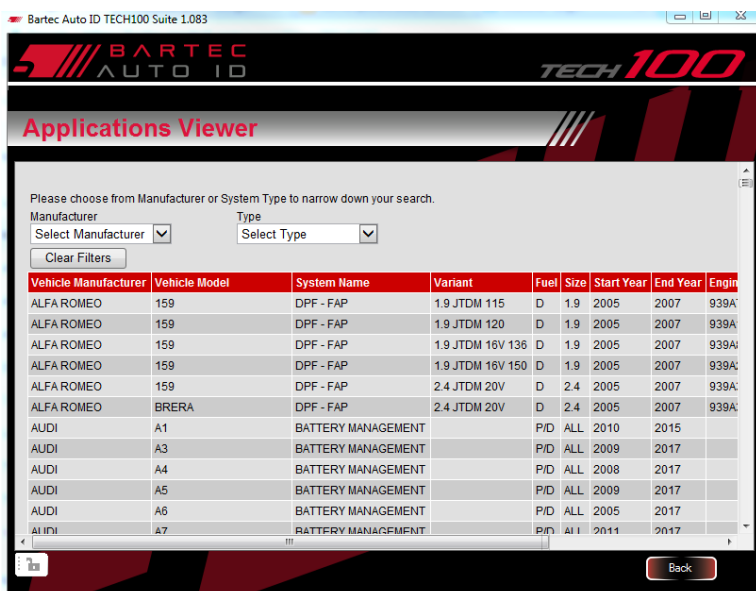
7. Tool coverage

To look up which vehicles and related systems the Tech100 currently covers, click the Applications Viewer link from the main menu of the Tech100 Suite.

NOTE: An internet connection is required to use Applications Viewer.

Within Applications Viewer, use the drop-down menus to filter system coverage listings by Manufacturer and/or Type.

Manufacturer selections can be further filtered by a subsequent Model selection.
Use the "Clear Filters" button at any time to reset your selections.

8. Options & Help

Features in the Option & Help menu are the see TECH100 Suite details (after registering), select your language (choose from Danish, German, English, Spanish, French, Italian, Dutch, Norwegian, Polish, Portuguese, Finnish and Swedish), contact the TECH100 Suite Help, see your subscription expiry date, test your internet connection, re-install your TECH100, select internet settings or delete the current registration data e.g. to register another tool on this computer.
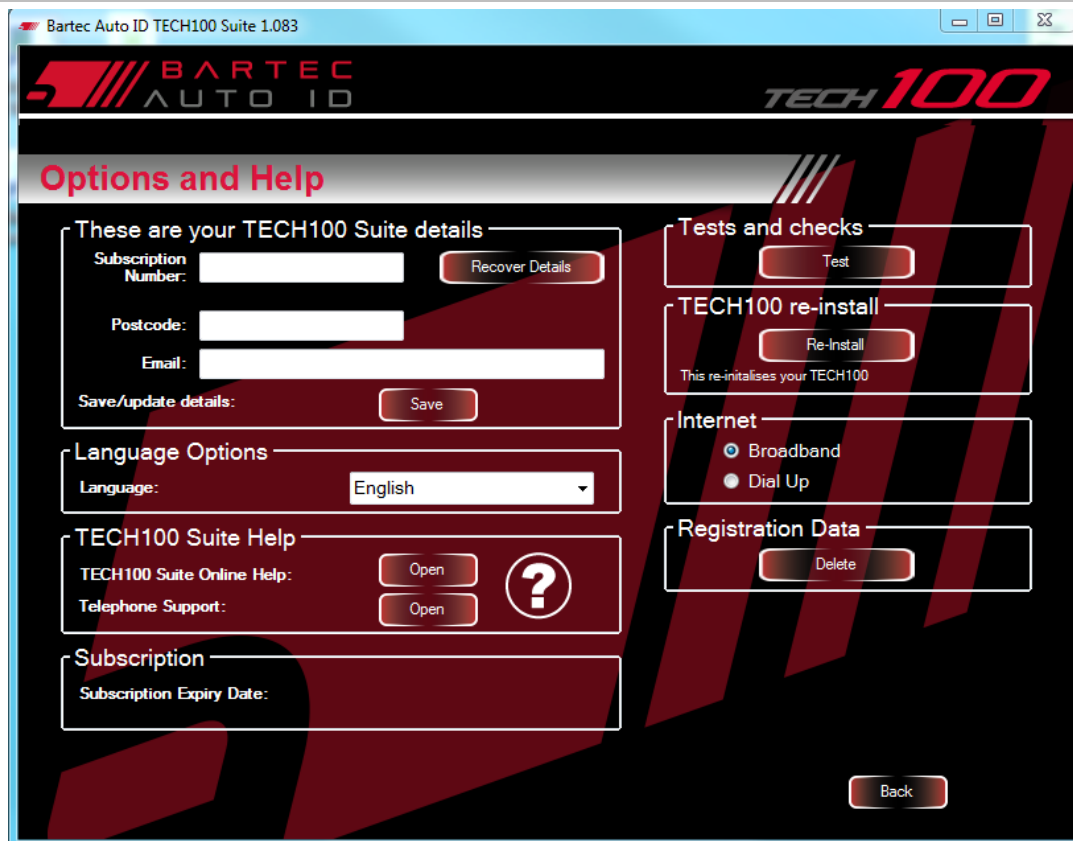
MAIN MENU

Diagnostics	Advances to the Diagnostics menu.
Battery Check	Used to check battery.
Settings	Advances to Settings menu.
Info	Advances to display tool information.

To access the submenus use the arrow keys to select an icon and pressing the OK key

DIAGNOSTICS MENU
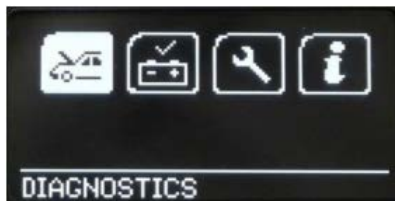
Battery Management

The Battery Management function enables the reset of a vehicle's battery system after a battery replacement. Where the battery manufacturer allows, the capacity and technology of the battery can also be changed.

Note: Follow all on-tool instructions when using these functions!


DPF - FAP

The DPF (Diesel Particulate Filter) function allows the user to read and clear fault codes relating to the DPF system and to perform dynamic and static or 'forced' regeneration of the particulate filter, replacement adaption and additive resets where applicable.

Note: Follow all on-tool instructions when using these functions!

EPB
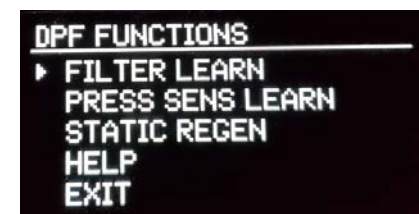
The EBP (Electronic Parking Brake) functions are for opening and closing the left and right parking brake pistons when replacing brake system parts (e.g. parking brake motors, brake pads, calipers, discs, wheel hubs, etc.). There are additional options to recalibrate the tilt angle sensor and reset the basis EPB settings.
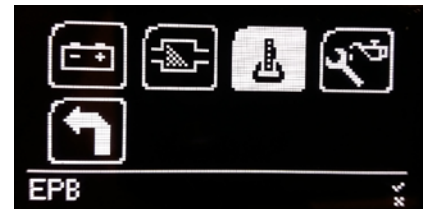
Note: Follow all on-tool instructions when using these functions!

NOTE: The battery on the vehicle needs to be above 12V to perform these procedures. It is recommended to use a compatible Battery Support Unit (BSU) with the vehicle if the parking brake will be operated repeatedly (e.g. during DTC troubleshooting).


Service Reset

The Service Reset options can be used to reset the engine oil life system of a vehicle (e.g. after performing an oil change), and to adjust the system's conditions for service alerts.

The 'SLR' package offers the customer diagnostic functions for service light reset, oil degradation, and Conditional Based Servicing, Long-Life and Time & Distance intervals.

Note: Follow all on-tool instructions when using these functions!

BATTERY CHECK
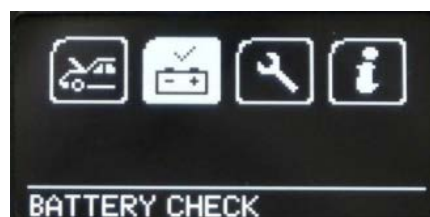
NOTE: There is no pause during tool prompts to confirm that the end user has completed the key positioning before the tool moves on to the individual tests, so it is advisable to familiarize yourself with the process beforehand. Prompts display for approximately two seconds before testing proceeds; ensure key repositioning is performed within this timeframe.

To use the Battery Check application, first ensure that the Tech100 is connected to the vehicle's OBDII port. In the vehicle, begin with the key in the ignition OFF position.

On the tool, select Battery Check from the Main Menu. You can then begin the battery check by pressing the OK button.

After pressing OK, the tool will prompt to switch the ignition off, because then it measures the ignition off system.
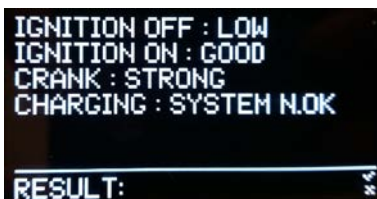

Next, the tool will prompt to switch the ignition on (key ON, engine OFF) and measure the ignition on system.

Finally, the tool will prompt to start the engine and run at idle. It will take measurements for the crank and charging systems.

 Once the tool has finished all measurements, the results will be displayed.

The values of the test results are as follows:

Ignition Off:
- Below 12.0V: LOW
- 12.0V – 12.6V: GOOD
- Above 12.6V: FULL

Ignition On:
- Below 11V: LOW
- 11.0V – 12.2V: GOOD
- Above 12.2V: FULL

Crank:
- Below 7.0V: WEAK
- 7.0V – 10.0V: GOOD
- Above 10.0V: STRONG

Charging:
- Below 13.9V: NOT OK
- 13.9V – 14.4V: GOOD
- Above 14.4V: STRONG
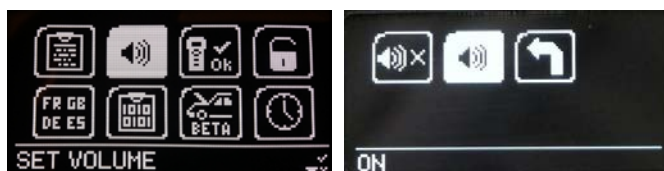
Press OK to return to the Main Menu.

SETTINGS

Contact us

Displays Bartec's contact information.

Set Volume

Use the arrow keys to highlight Off or On and press OK to select, then navigate to the Exit icon and press OK.

Self Test

Self tests contains a series of tests to help determine whether the Tech100 is functioning properly. If any Self Test functions display a failure for the tool, please contact Bartec.

- TEST BUTTON: Displays a confirmation when each key is pressed. Displays a "Passed/Failed" result after all six keys have been pressed, then automatically returns to the Self Test menu.
- TEST SOUNDER: Plays continuous sound for approximately three seconds, then automatically returns to the Self Test menu.
- DISPLAY PIXELS ON: Lights all pixels on the OLED display to illustrate whether any are defective (i.e. "dead pixel")

Note: The test options for CAN, J1850, ISO and SWCAN are used by the Bartec Auto ID Repair department and are not recommended for use as field diagnostics.

Do not attempt to open your Bartec tool, as this will void your warranty!

Unit Registration

Unit Registration is an offline tool activation application used by Bartec Auto ID Technical Support when required.

Language

Used to set the language on the Tech100. Choose from:

- English
- English – US
- Deutsch (German)
- Francais (French)
- Espanol (Spanish)
- Svenska (Swedisch)
- Nederlands (Dutch)

- Italiano (Italian)
- Portugues (Portuguese)
- Suomi (Finnish)
- Dansk (Danish)
- Polski (Polish)
- Norsk (Norwegian)

Data Logging

Data Logging should only be accessed when requested by Bartec Technical Support.

Beta Software

Beta Software should only be accessed when requested by Bartec Technical Support.

Set Date and Time

Displays the date and time the tool is configured to, which is set when connected to a PC. Press OK or Esc key to exit.

INFO

Advances to display tool information (e.g. serial number, firmware version, etc.)

TROUBLESHOOTING

TECH100 states "There are no activated applications on this handset"
The TECH100 has not yet been registered. See Section **Registration** on page 7 for more information.

Windows does not recognize my TECH100 when connected to my PC

Verify that the mini USB cable is connected securely to the tool and the PC. If available, try connecting to a different USB port on the PC in case a specific port is malfunctioning.

The TECH100 will not power on when connected to a vehicle

The minimum battery voltage required to power the TECH100 is 9V. If the vehicle's battery voltage drops below this level, the tool may not power on, or only power up to boot mode.

Visually inspect the OBDII cable. Missing or damaged pins would require replacing the cable.

USB connection failed

Either Windows didn't recognize your TECH100 (see above) or the drivers for the tool are not installed correctly.
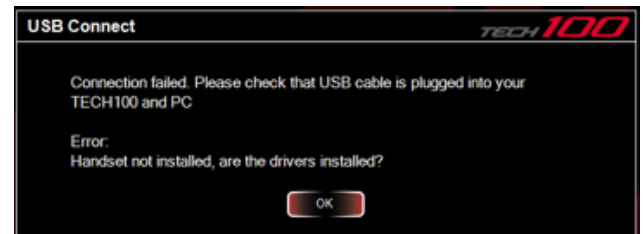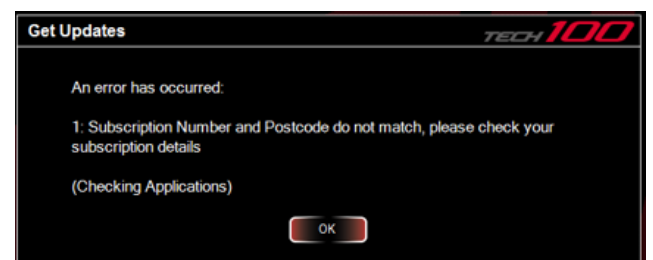

Detecting handset failed

Your internet connection doesn't work properly. Please test it in Options & Help (see page 16 for more information)
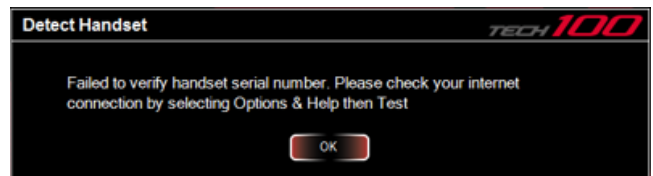
Error after entering your details

Make sure to enter no spaces before the subscription number and postcode.

TECHNICAL SPECIFICATION

Power Supply	OBDII and USB connection
Max power consumption	1.5W Schrader TPM, 0.5W all others
Display	High contrast OLED graphics display
Keyboard	6 keys, oil and water resistant
Input/output	Mini-B style USB used to connect to PC for firmware update
Vehicle connection	15 way D connector on tool connects cable with OBDII connector on the other end
Working environment	Temperature 0°C - 40°C
Storage environment	Temperature –10°C - 50°C, Humidity: 20-60%
Dimensions	187mm x 107mm x 47mm
Weight	290g

BARTEC PRODUCT RANGE & ACCESSORIES

TPMS Tool
TECH500

TPMS Tool
TECH300

Tread Depth
and Pressure
Tool TAP100
& TAP200

Diagnostics
Tool
TECH100

ACCESSORIES

TPMS wireless
charging PAD

Audit Report
Mini Printer

CUB Adapter
programming
Fixture

TPMS sensor
programming
PAD

Wall mountable wireless charging stations for the workshop or mobile working