

TECH450

Tyre Pressure Monitoring System Tool

User Guide



FOREWORD

Thank you for choosing the TECH450. This manual will help you get your tool up & running and explains how to get the most out of all its great features.

PLEASE ENSURE THAT YOUR TOOL IS FULLY CHARGED BEFORE YOU FIRST USE IT AND BEFORE REGISTRATION.

If you need any further assistance, please visit the support pages on our website at www.bartecautoid.com

LIST OF CONTENTS

FOREWORD	2
LIST OF CONTENTS	3
IMPORTANT NOTICES.....	4
SAFETY PRECAUTIONS	5
BEFORE GETTING STARTED	6
KIT COMPONENTS.....	7
REGISTRATION.....	8
CHARGING TOOL.....	11
POWER ON/OFF SEQUENCE.....	11
HOME MENU.....	12
MORE TPMS INFORMATION.....	13
SELECT A VEHICLE.....	13
NEW SERVICE	14
1/6 CHECK SENSORS	15
2/6 PROGRAMMABLE SENSORS	17
3/6 RELEARN.....	18
4/6 OBD DIAGNOSTICS	20
5/6 TECHNICAL INFORMATION.....	20
6/6 REVIEW VEHICLE DATA	21
SETTINGS.....	22
TPMS DESKTOP	23
BLUETOOTH SETTINGS.....	24
UPDATING THE TOOL VIA USB CABLE.....	25
UPDATING YOUR TOOL VIA WI-FI	26
APPENDIX.....	26
TECHNICAL SPECIFICATIONS.....	28

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: This means you may risk possible loss of life.



WARNING: This means you may risk possible bodily harm.

CAUTION: This 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 jeopardise your 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 workplace 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 to protect the environment and human health.
- In accordance with European Directive WEEE 2012/16/EU, 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 the use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with appropriate penalties.



DISPOSING OF BATTERIES

- The TECH450 contains a Lithium Polymer rechargeable battery which is not accessible to the user.



WARNING

- Risk of fire or explosion if the battery is replaced by an incorrect type.
- Batteries must be recycled or disposed of properly. Do not throw batteries away as part of normal refuse disposal.
- Do not throw batteries onto an open fire.

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.
- Do not apply metallic labels to the rear of the tool as this may cause heat build-up while charging and possible fire.

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 invoice date (parts and labour) only if the product has been correctly used. The serial number must stay readable, and proof of purchase must be retained for presentation upon request.

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BEFORE GETTING STARTED

CHARGING

NOTICE: Only use the power supply or USB cable that is included in the TECH450 tool kit to charge this tool. The use of unapproved power supplies may damage it and will void the tool warranty.

REGISTRATION

The Bartec TECH450 can be registered through the TPMS Desktop software, found at www.tpmsdesktop.eu. This allows the user to update the tool to the latest software through the method they prefer.

UPDATE

Once the tool is registered through TPMS Desktop, verify the software level loaded to the level available online and update the tool if necessary. Updating through the TPMS Desktop is recommended.

DISCONNECTING FROM PC

NOTICE: Before disconnecting the tool from a PC, please ensure to “safely remove hardware” first, by locating the “Safely Remove Hardware” icon on the lower right-hand side of the PC screen. This will prevent the data on the tool from being corrupted.

KIT COMPONENTS

The **TECH450** kit inside the toolbox includes:

- TECH450 TPMS activation tool
- OBD Cable
- Qi Charging cradle
- USB cable
- Tool case

IDENTIFYING KIT COMPONENTS AND FEATURES

The TECH450 tool is battery operated and generates a low-frequency magnetic field to activate tyre sensors. It receives UHF radio signals from the tyre sensors typically at 434MHz.



REGISTRATION

Automatic registration takes place when the tool is first turned on. Registration enables the notification of software updates and the ability to download updated files to the tool. Once an account has been made with TPMS Desktop, the tool will be registered to that account, and the latest available updates will be downloaded.

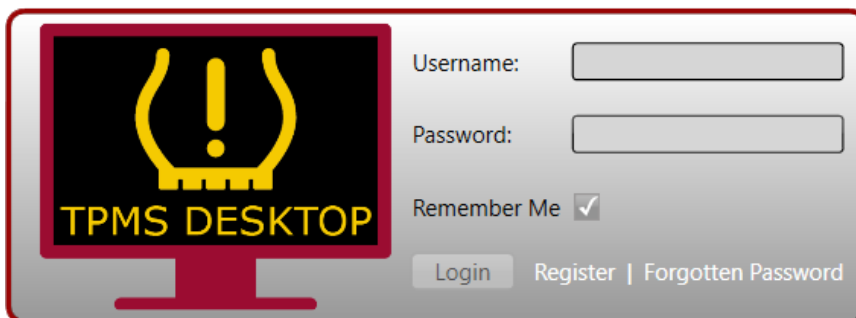


Screen when you first turned the tool on.

To register a tool, navigate to the Bartec TPMS Desktop at tpmsdesktop.eu on your PC.



Download the TPMS Desktop software and install it using 'setup.exe'. When the TPMS Desktop has been loaded for the first time, the user will be presented with the following:



Select 'Register' to create a new account. The following screen will be displayed:

The screenshot shows a web browser window with the Bartec Auto ID Tool Support Centre logo and navigation menu. The main heading is "Customer Registration". Below the heading, there is a thank-you message and instructions to fill in the form. The form fields are: User Name (with a note "Cannot contain spaces."), Password (with a note "Passwords must be at least seven characters long. Spaces and chara"), Confirm password, First Name, and Last Name. A "Close" button is visible at the bottom of the form.

It is important to fill in all fields completely and accurately. This information will help Bartec remain in contact regarding updates and other important TPMS information. Choose a username (without a space) and password.

If the details are accepted, this message will show:

The message box has a dark header with the text "Registration Complete - Awaiting Email Confirmation". Below the header, the text reads: "Your registration is complete. Please check your email and follow the link to confirm your email address to enable your account."

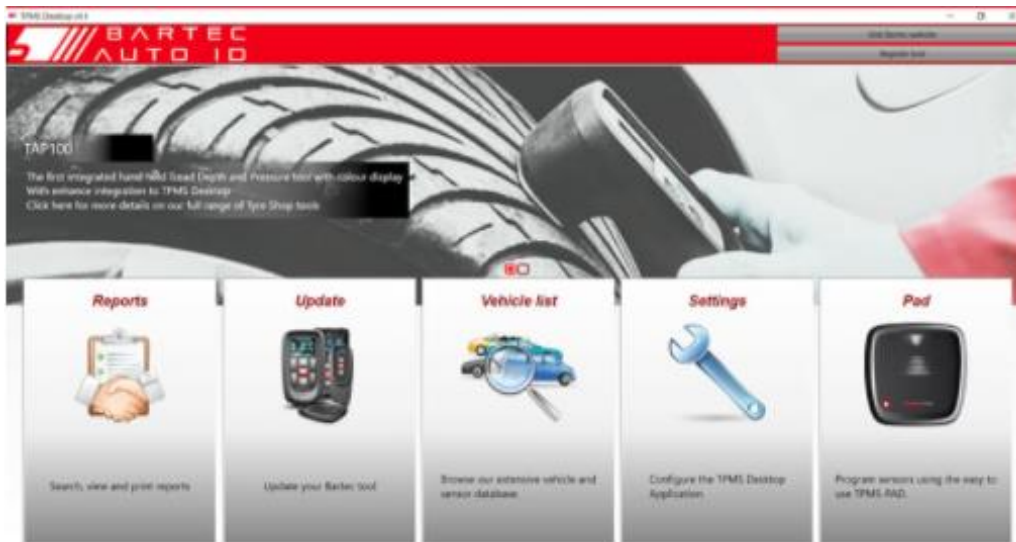
The following email should arrive within a few minutes:

The email content is as follows:
 Thank you for registering at <https://tools.bartecautoid.com>. Please bookmark the website for future reference.
 Your user name is: TPMS-user
 Please click the following link to confirm your email address and enable your account:
[Confirm account](#)
 If you need technical assistance please email us at support@bartecautoid.com.
 Regards,
 Bartec Auto ID Tool Support Centre

When clicking 'Confirm account' it will bring the user to the website and the following page will show that the registration was successful. Return to the TPMS Desktop to log in.

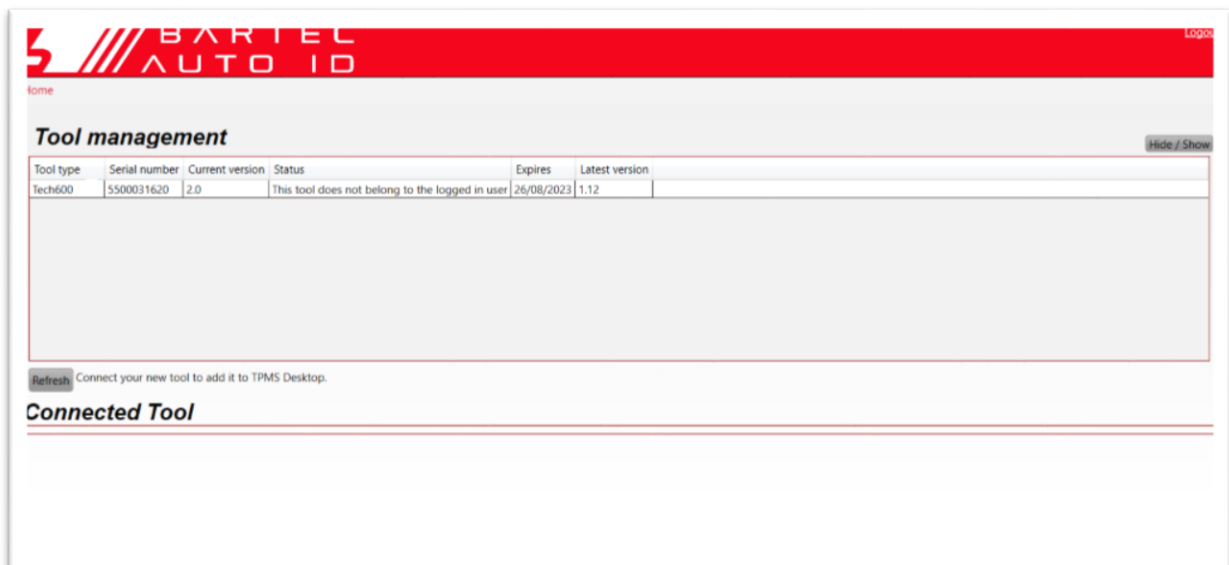
The message box has a dark header with the text "Registration Email Confirmation". Below the header, the text reads: "Your email address has been validated. You can now login to register tools. You can log in on [this page](#)."

After Login, the main screen of the TPMS Desktop is displayed.



Connect the TECH450 to the computer. The TPMS Desktop will automatically register the tool and will display the message: “Tool successfully registered”. The TPMS Desktop will then check for any updates that can be applied to the tool. Alternatively, the user can navigate to ‘Update’.

Once registered, the user will see the tool listed, along with whether the tool is up to date:




Updating the TECH450 and keeping it up to date using the TPMS Desktop is recommended.

CHARGING TOOL

The TECH450 is shipped with a charged battery. It is recommended that the tool is charged 2+ hours before first use. For optimum performance, always keep it sufficiently charged.

The TECH450 will notify the user when the battery has low power, and the battery icon will change color from white to red. When there is an insufficient amount of power remaining in the battery, the TECH450 will save all of the TPM Data and then power itself off.

POWER ON/OFF SEQUENCE

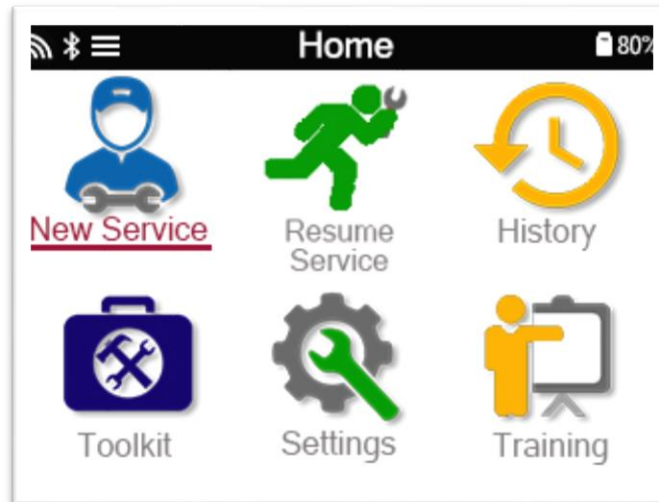
Press and hold the  power button for two seconds to power on the tool. To power off the

tool, press and hold the  power button for three seconds.

Auto power off is after 10 minutes of inactivity. This can be changed in the Settings menu.

The unit automatically powers up when the charger or USB port is in use – auto power off is not operational. The tool cannot be operated when plugged in.

HOME MENU



New Service

Used to check sensors, relearn sensors to the vehicle, perform OBD diagnostic, program sensors, and receive TPMS information.



Resume Service

Used to resume your last job.



History

Used to call up all stored works. The user can search by registration or model and can also use this history function to upload and clear Service Data.



Toolkit

Allows the user to test the signal strength of a key fob (RKE Test) and test the strength of a UHF signal (UHF monitor).



Settings

Used to set up your settings in the tool – language, Wi-Fi/Bluetooth, units, auto-off, sound, etc.




Training

Used to get tips related to TPMS.

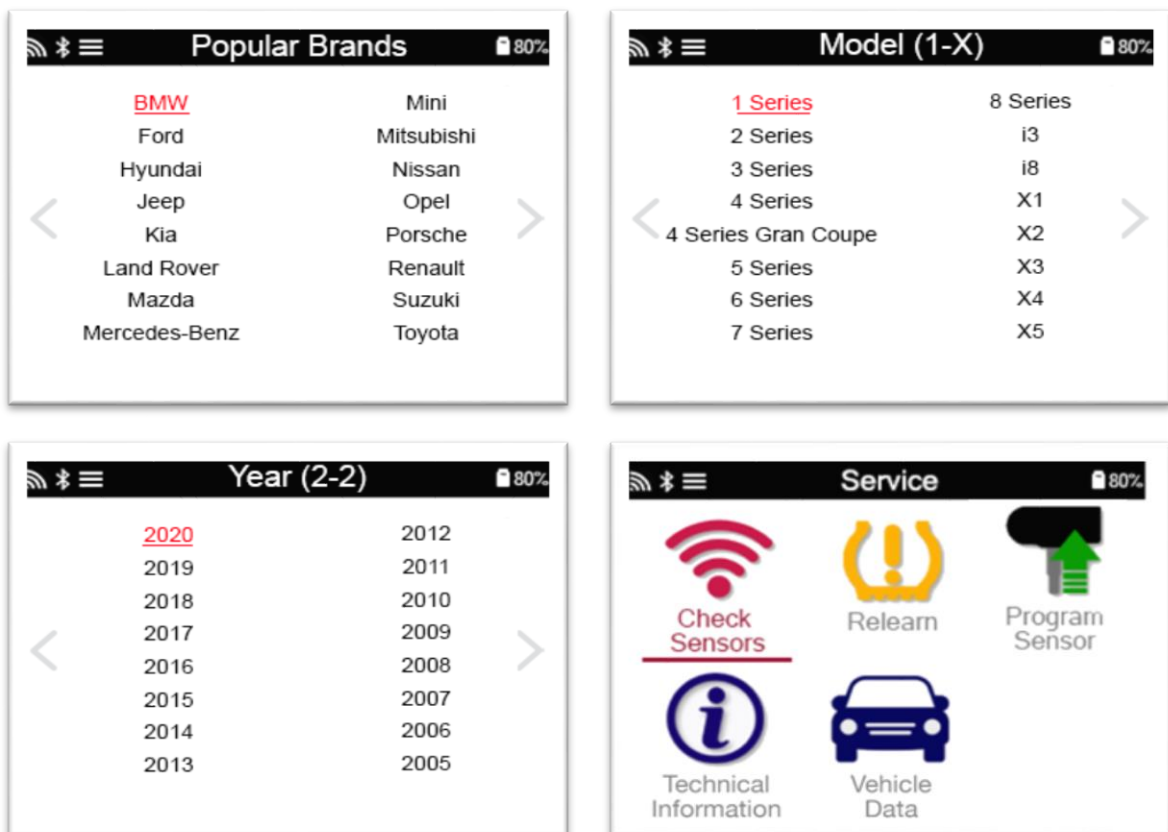
MORE TPMS INFORMATION



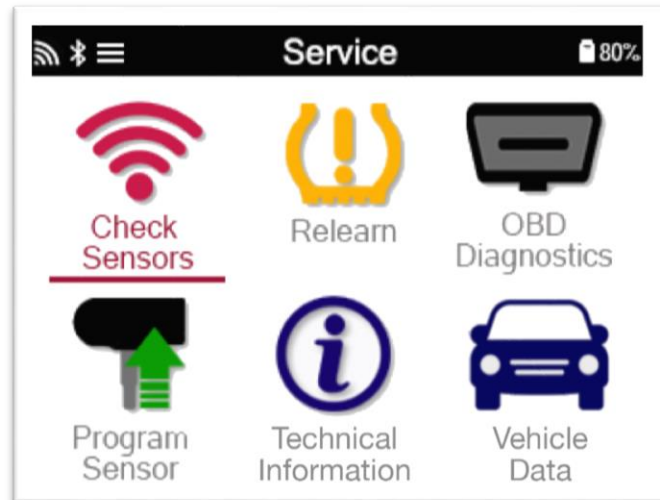
If you see this icon on the screen press  for more TPMS information or TPMS options.

SELECT A VEHICLE

When starting a New Service, the user will be prompted to select the vehicle that requires TPMS maintenance. Scroll through the menus to select the correct manufacturer, model, and year to see all available service functions.



NEW SERVICE



Check Sensors

This uses a quick and easy to follow process which allows the user to read sensors, process the data, and read battery status & IDs.



Relearn

All relearn procedures are available.



OBD Diagnostics

Used to diagnose vehicle problems, receive sensor IDs, and reads the vehicle VIN.



Program Sensor

Create
Copy/clone ID (single)
Copy/clone ID (set)
Copy using stored data.
Enter ID manually.
Multiprogramming
Identify Universal sensor.



Technical Information

Detailed sensor & service kit information.



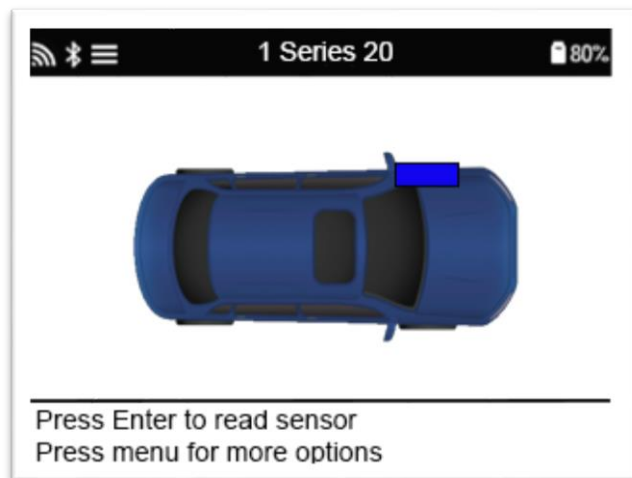
Vehicle Data

Allows the user to review the service data captured with the TECH450.

1/6 CHECK SENSORS


Use this function to test the fitted sensors before continuing with further steps.

To check the status of the TPMS sensors on the vehicle, select Check Sensors from the Service Screen. A screen similar to the following should be displayed:



Use the arrow keys to select the sensor which needs to be read.

LF ACTIVATED SENSORS

To test a sensor the tool should be placed alongside the valve stem and the 'Test'  key pressed.

TOOL POSITIONING

Do NOT touch the metal rim. The tool needs to point through the rubber at the sensor.



(Note: with Ford Banded sensors the tool should be held 180°/opposite from the stem's position)

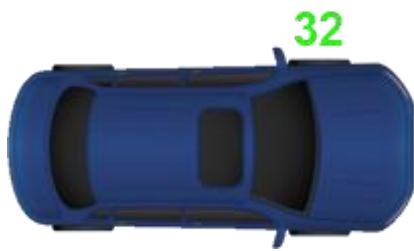
NON - LF ACTIVATED SENSORS (SOME EARLY BERU AND PACIFIC PARTS)

If the tool requires rapid tyre deflation (of the order of 10psi or 0.5 bar), then deflate the tyre and place the tool alongside the stem while pressing the test key.

During testing, the screen confirms the sensor type being tested and displays a progress bar. Different makes of Sensors respond at different speeds/ time intervals.

POSSIBLE READING SCENARIOS

Note that if a faulty Sensor has been replaced, some method of relearn procedure will need to be followed, as explained later in this manual.



Successful Sensor Read

The sensor was successfully activated and decoded. Displays pressure (in Bar or PSI) at wheel location.



Failed Sensor Read

No Sensor Activation or Decode. May be a wrong sensor fitment or a non-functioning sensor. The tool will prompt you to attempt reading the sensor 3 times.



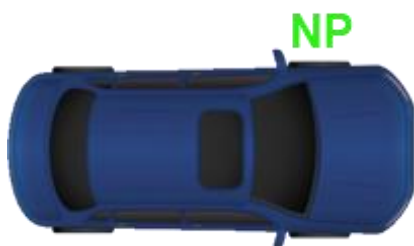
Duplicate ID

A Sensor with a duplicate ID has been read. The tool will direct to re-read those sensors.



Wrong Sensor Type

A Sensor was activated and decoded but does not match the protocol for the Make Model Year that the tool was set up for.



No Pressure

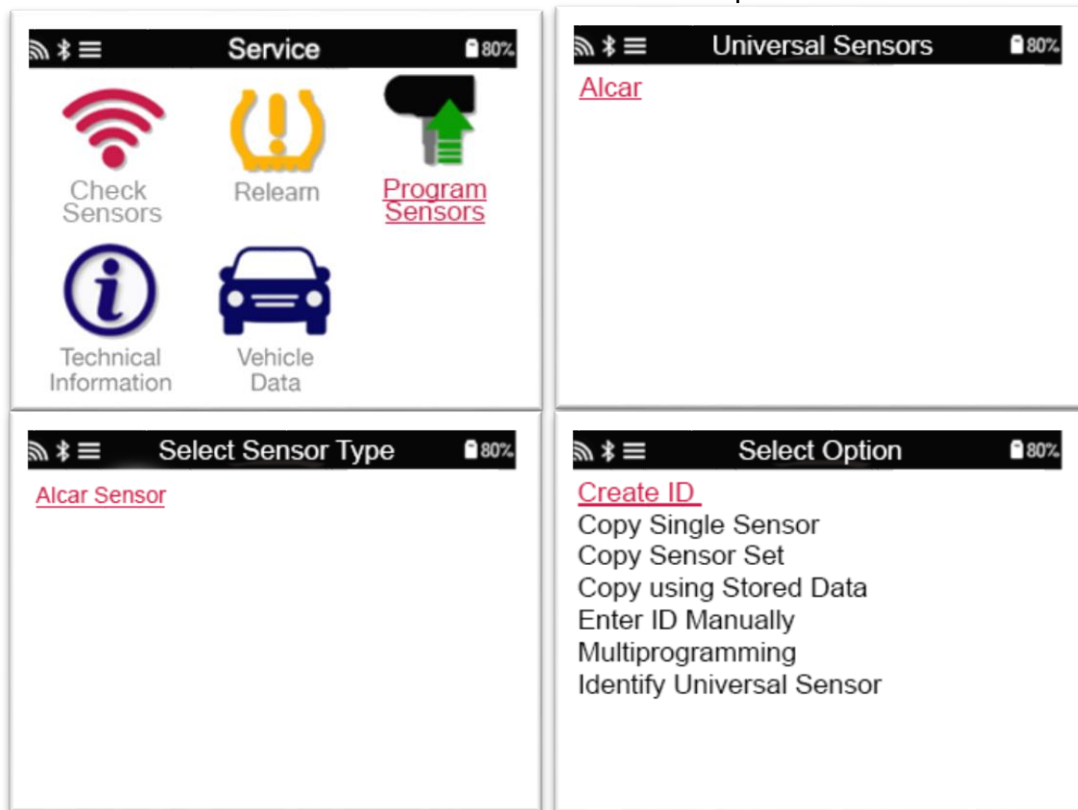


Low Sensor Battery

The sensor's internal battery has dropped below a certain voltage threshold.

2/6 PROGRAMMABLE SENSORS

The “Program Sensors” on the service menu enables the function of programming aftermarket replacement sensors like the HUF IntelliSens, Alcar Sensors, Alligator Sens.it or the Schrader EZ-sensor. Even when they are already mounted in a wheel or programmed to another vehicle. The user can choose from a selection of sensors that match the preselected MMY.



Copy Sensor Set	Used to Copy/Clone a winter tyre set with the same ID's as the summer tyre set. Requires the reading of the old sensor to program the same ID on the replacement sensor to avoid the relearning process.
Create ID	Used to create a single sensor with a new ID. Can be repeated as many times as requested. The ID needs to be relearned to the vehicle's ECU. The following pages will describe this procedure.
Copy/Clone ID	Used to Copy/Clone a single ID. Can be repeated as many times as requested. Requires the reading of the old sensor to program the same ID on the replacement sensor to avoid the relearning process.
Enter ID Manually	Used to create a Sensor with a new ID that can be typed in manually. This option only appears for some sensors. If it is not possible to copy the ID, enter the same ID manually, which is written on the sensors body.
Copy Using stored data	Gives you the option of using stored IDs either read from the TPMS sensors or from the vehicle OBD.

The current coverage list is available at www.bartecautoid.com

The user has the option to either create or copy the ID.

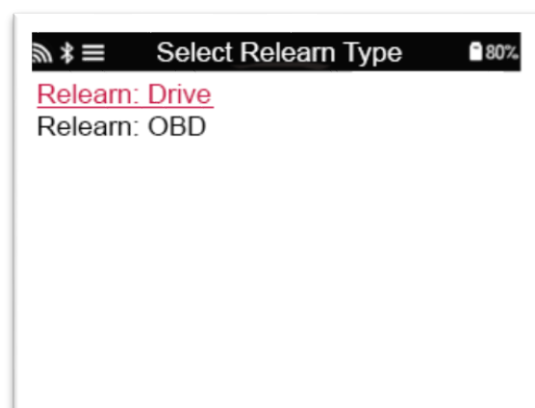
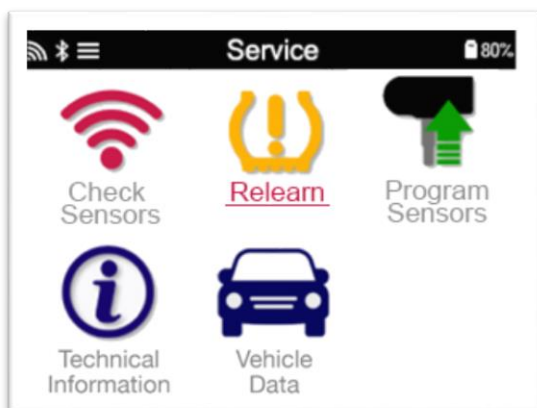
Notice: Sensors need to be read before copying.

Sensors that can be programmed by the tool may have slightly different procedures and times.

Recommended sensor position for programming:



3/6 RELEARN



To find out which relearn type is available for a vehicle, just turn on the tool and select Relearn. Or refer to the current coverage list at www.bartecautoid.com > Downloads.

STATIONARY RELEARNS

Stationary Relearns use the vehicle's onboard TPMS system to listen for transmissions from sensors while the vehicle is in a "Learn Mode".

Once the vehicle is in Learn Mode, use the tool to activate the sensors. The vehicle will listen for the sensor IDs and learn them to the vehicle.

ACTIVE (DRIVE) RELEARNS

Some vehicles can be reset by driving. Refer to the on-screen relearn procedures for details on how far/long to drive. It can take up to 20 minutes to relearn the sensor IDs.

OBD RELEARN

OBD connection allows the TECH450 to directly program the vehicle electronics module with sensor IDs.

Note that not all vehicles support vehicle communications modes.

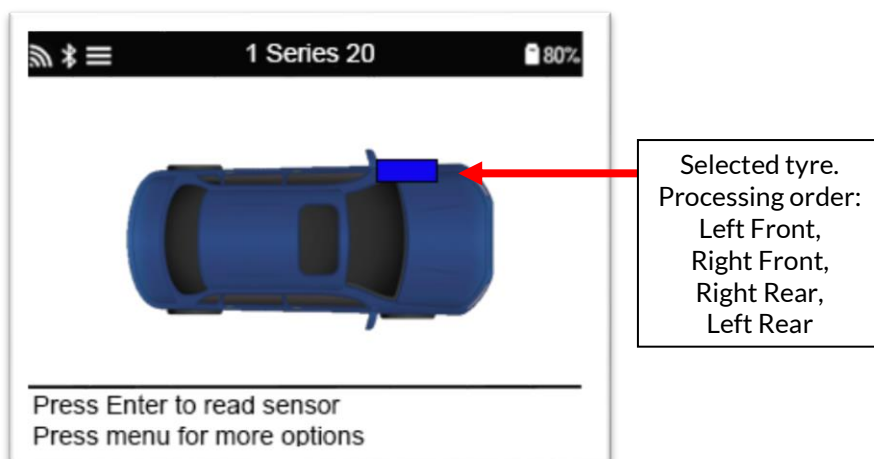
OBD can be connected when all sensors are successfully read and the message "All Sensors OK" is displayed.

Please use the "Technical Information" menu and select "View Vehicle Info" to find the OBD location.

RELEARN INFORMATION

This contains extra information about the relearn for the selected vehicle, which can assist you if you have any problems. An example would be for some Toyota and Lexus vehicles which use a summer and winter tyre set.


After selecting a Relearn method, follow the instructions given by the tool to relearn Sensors.

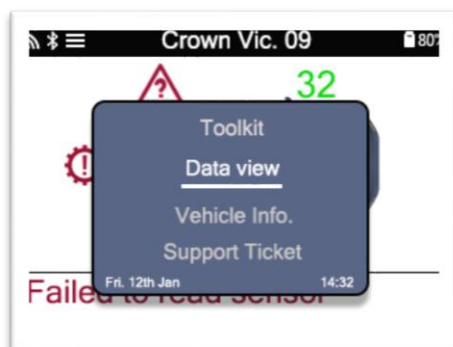


As well as the pressure and temperature, we also display the “mode” of the sensor. In some cases, the mode cannot be changed and isn’t important, but in some cases, it will need to be changed in order for the relearn to work.

For example, if sensors for a vehicle show “Park” or “Drive” they are already in the correct mode. Otherwise, use the “Mode Change” command in the Quick Access Menu. If the sensors are shown as Ship, Off or Test mode, put them in Park mode, using the “Mode Change” command in the Quick Access Menu



Press the  to access the Quick Access Menu and see the options available for the vehicle requiring a Relearn. Options that are not required on a vehicle will not be displayed.



Special service advice for Toyota Models:

Toyota ECU Reset

If at any time the vehicle TPMS Reset button is pressed with the new sensor IDs fitted, the ECU OBD relearn will not work until the Toyota ECU Reset is selected (with the tool connected to OBD). The TPMS Reset button should only be used to set new tyre pressures, and on some vehicles to change between winter and summer ID sets.

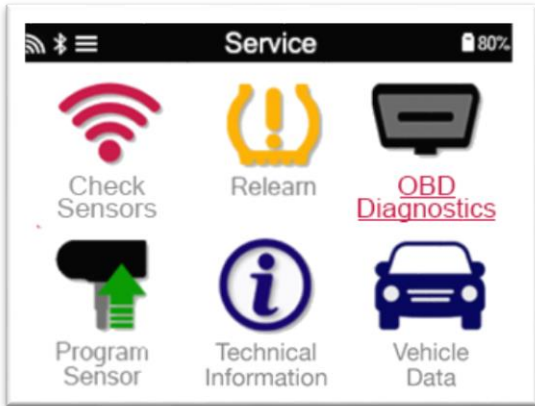
Special service advice for Kia and Hyundai Models:

Reset YD Sensor

For some Kia and Hyundai vehicles with the newer low line TRW YD sensors, this allows you to put the sensors back into the correct mode (Sleep or Rest) to work with the vehicle.

This specific Service advice will only appear if applicable for the preselected Make, Model, and Year combination.

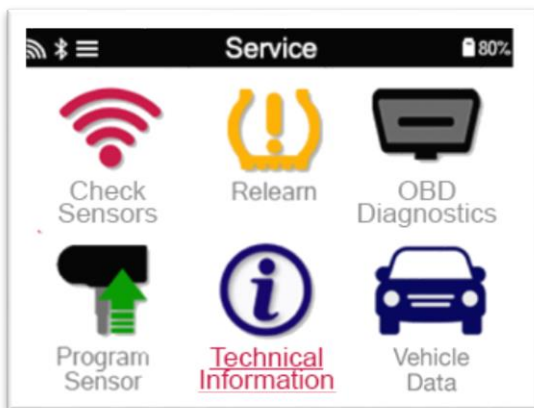
4/6 OBD DIAGNOSTICS



OBD Diagnostics

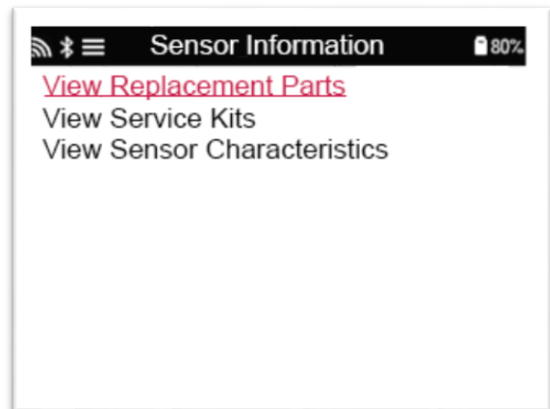
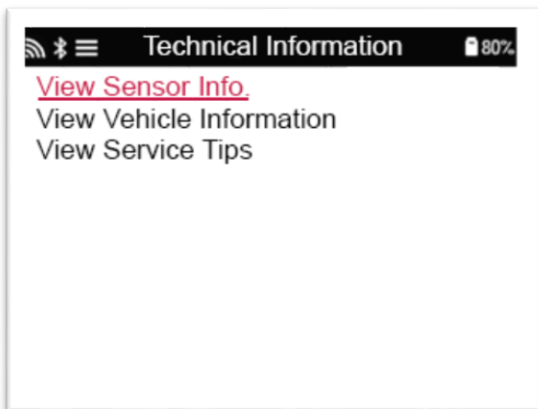
This option will only be listed for vehicles that Bartec has OBD coverage for. It reads information from the vehicle such as the VIN, DTCs (Diagnostic Trouble Codes), and the IDs of the sensors.

5/6 TECHNICAL INFORMATION



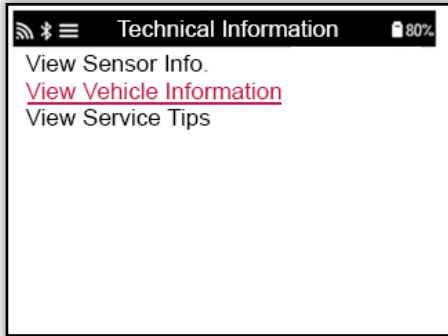
Technical Information

Gives detailed information about replacement parts, service kits, sensors, vehicles, and service tips.

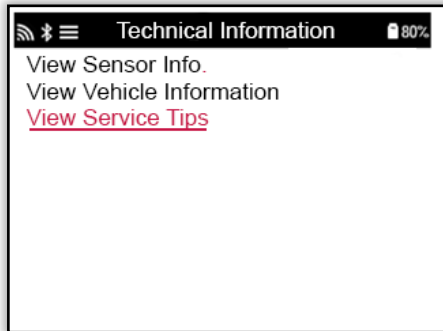


Sensors do not have to be read to access the following information.

View Replacement Parts	Used to show all Replacement Sensor part numbers that can be fitted to the preselected MMY
View Service Kits	Used to show all Replacement Service Kit part numbers that can be fitted to the preselected MMY
View Sensor Characteristics	Used to show technical sensor information of the sensor that needs to be fitted. e.g., Nut torque settings



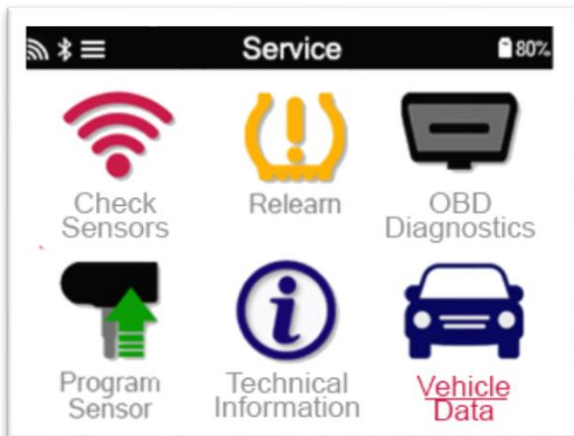
View Vehicle Information This option provides information about the Relearn method, the OBD port location, and if there are programmable Sensors for the preselected MMY available.



View Service Tips This option provides information about the specific meaning of the TPMS light as well as common mechanical faults for the preselected MMY.

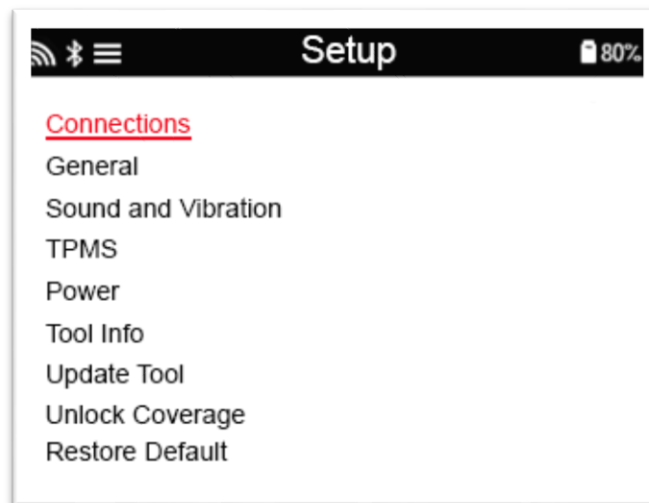
6/6 REVIEW VEHICLE DATA

Sensors and OBD need to have been read for data to be shown.



The menu gives direct access to specific screens that display the Vehicle data. This option is helpful if the user wants to have a second look at the Sensor and OBD Data.

SETTINGS



Connections

Connect to TPMS Desktop and Wi-Fi.

General

Check and update the time and date on the tool, and change the language displayed

Sound and Vibration

Enable or disable tool sounds or vibrations.

TPMS

Change the units displayed when reading a TPMS sensor, for Pressure, Temperature, and the TPMS ID

Power

Change the length of time before the tool automatically turns off

Tool Info

Display the tool info, including software version, serial number, etc.

Update Tool

Update the tool to the latest software (requires the tool to be registered; see page 14).

Unlock Coverage

Allows the user to enter a code to unlock coverage on their tool.

Restore Default

Restore the tool settings to factory settings.

CONNECTING TO A WI-FI NETWORK

After selecting Connections in the Settings menu, it is possible to choose between Bluetooth and Wi-Fi.

To connect to a Wi-Fi network, highlight 'Wi-Fi: Join Network' and press Enter. Select the correct available network displayed by highlighting it and pressing Enter. Use the Up Arrow key to start with the upper case, the Down Arrow key for numbers, and the lower case to enter the passphrase. ESC to go back to a position and Enter to enter the next character. TEST to connect. Special characters like ß, ä, ö, etc. cannot be selected.

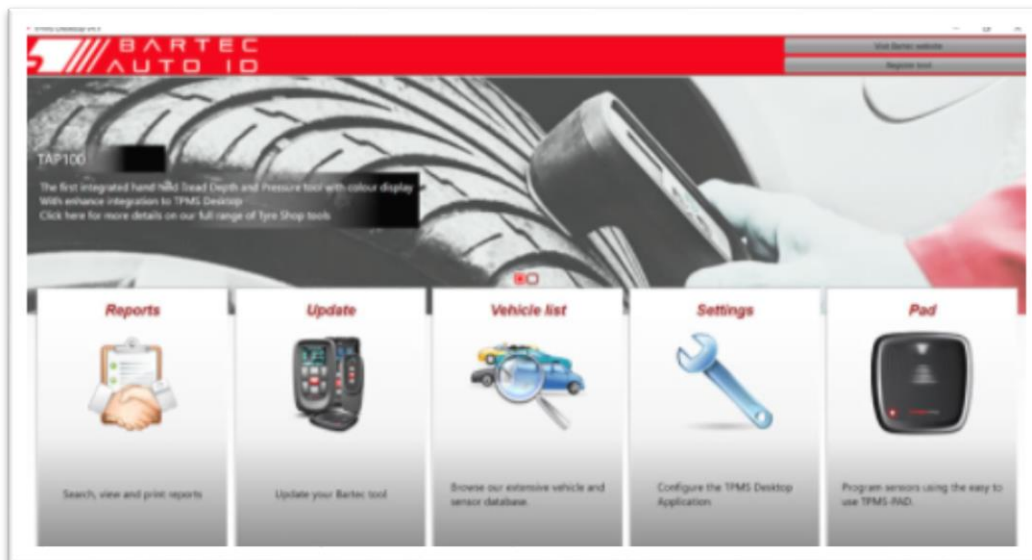
When connected, it is possible to check for updates.
To go ahead, press enter. To check later press ESC.

The current network displays information about the network the tool is connected to.

TPMS DESKTOP

The TPMS Desktop provides revolutionary technology to help manage Bartec TPMS tools on a PC. The TPMS Desktop is designed to work with the following Bartec tools; TECH400, TECH300, TECH500, TECH450, TECH600, and the TAP100/200.

Go to www.tpmsdesktop.eu to download your FREE copy now!



Reports	Complete job reports recorded and stored when needed.
Update	Automatically retrieve updated files from the current registered account.
Vehicle List	Lookup TPMS information for a vehicle quickly and easily.
Settings	Configure settings for Bluetooth and Wi-Fi configuration.
Display	Software is available to display vehicle details, RELARN pressure, and tread depth readings on a TV or Monitor for Tyre shop garages or waiting rooms.

REPORTS

Search, view, and print job reports. This preformatted and detailed record contains the necessary job information needed for users and customers! To sort or filter reports by date, make, model, and year. Or to print a report and attach it to the invoice as proof of work completed. Reports can be used to create customer receipts and limit liability.

UPDATE

Register and update the Bartec Tool with the latest software. This feature helps to keep control of all tools in use and updates them with the most current software available. Simply connect the tool to a PC with TPMS Desktop installed and click *Update*. This is the preferred method for updating the TECH450.

VEHICLE LIST

Browse the extensive vehicle and sensor database. Search by make, model, and year to quickly find the data needed: OBD location, TPMS relearn, sensor information – it's all there with TPMS Desktop. Plus, the database is regularly updated.

SYSTEM SETTINGS

Configure the TPMS Desktop Application to meet the Tyre shop's needs. Want to connect with Bluetooth? Connectivity is just a few clicks away with TPMS Desktop.

DISPLAY

Garage/Tyre shop display screen functionality enables the technician to show the customer their vehicle readings on a TV or monitor in the garage or waiting room. Gives the customer more confidence and sells more tyres.

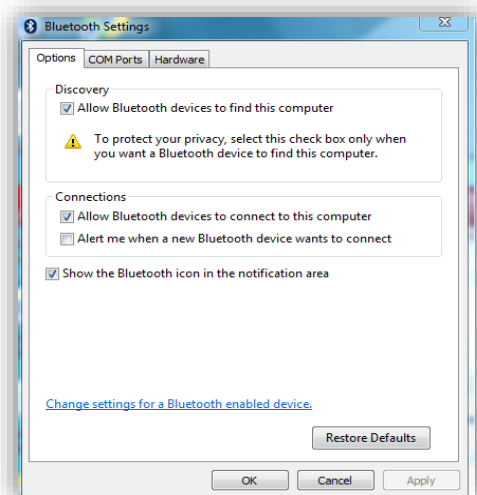
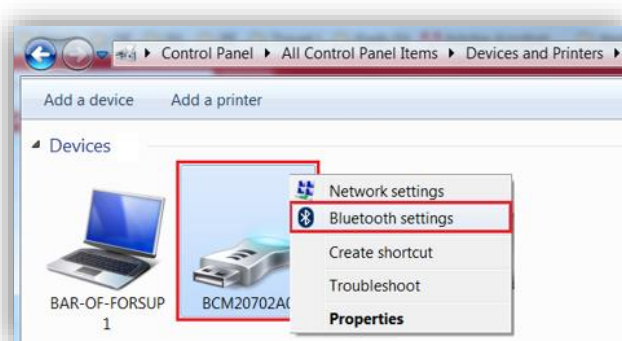


The TECH450 will connect wirelessly to the TPMS Desktop using Bluetooth technology. While this will work easily with most computers, some have software that can be difficult to set up. In these rare circumstances, or if the computer does not support Bluetooth, a Bluetooth adaptor will be used. Additional information on how to install an adapter can be found on the Bartec support website: tools.bartecautoid.com.

BLUETOOTH SETTINGS

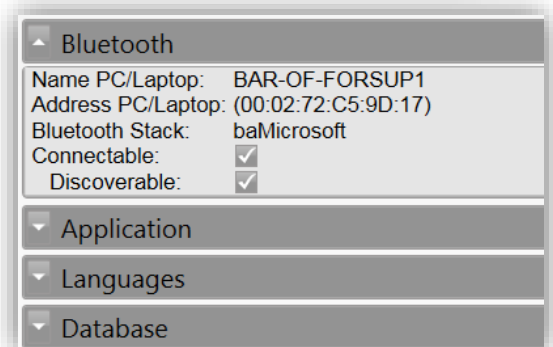
To be able to use the TECH450 with Bluetooth, the tool first needs to be configured. Go to Settings > Connections > "TPMS Desktop: Add device" The Tool will then attempt to connect with TPMS Desktop on the PC.

If there are problems using the built-in Bluetooth, the user can use a USB dongle. Select Devices and Printers in Control Panel.



Right click on the Bluetooth dongle icon and click on Bluetooth settings. Tick the boxes as seen on the Options tab above. Press OK when finished.

Start the TPMS Desktop application and go to Settings. Open the Bluetooth section: the PC/Laptop should be connectable and discoverable for the TECH450.



UPDATING THE TOOL VIA USB CABLE

The tool is compatible with PCs running Windows operating systems.

Step 1:

Power on the TECH450 and connect to a PC. The Tool will display a USB icon, to indicate that it is ready to receive update files.

Step 2:

Navigate to TPMS Desktop and log in. If the User does not have TPMS Desktop or has not registered the TECH450, please refer to the Registration pages in this document.

Step 3:

TPMS Desktop will check for the latest available update for the TECH450. If there is an update available, a notification will be displayed. Select 'OK' to confirm that the update can be applied to the tool.

Step 4:

TPMS Desktop will download the updated files to the TECH450. When the files have been successfully downloaded, the TECH450 will install the files. Do not unplug the tool before the update has been completed.

IMPORTANT: Please ensure that you “safely eject hardware” from the PC before unplugging the TECH450. This is to prevent data on the tool from being corrupted.

Step 5:

The tool is now updated and ready to go. The user can confirm that the tool is up to date via TPMS Desktop. The software version can also be checked on the Tool Info screen.

Trouble Shooting Tips:

- If Windows does not recognize the tool, please check that the USB cable is connected, that the tool is in update mode, and that there are no unnecessary update files on your PC available.
- If the tool becomes corrupted after being disconnected from the PC without safely ejecting it, the user can perform a check to attempt to fix the issue. To do so, right click on the drive you wish to scan, and navigate to “Properties”. Select “Tools” from the available options, and then select “Check”, to allow the PC to begin checking the device.

UPDATING YOUR TOOL VIA WI-FI

Once the tool is set up to connect to a Wi-Fi network, it will be ready for updating via Wi-Fi. Go to Settings > Update Tool > Wi-Fi Updates. There are two options:

Schedule check	The interval setting, with which the user wants the tool to check for updates (Off / Daily / Weekly / Monthly). Once the interval is set, the tool will use its internal clock to switch on Wi-Fi, connect to the Bartec system and alert the user when an update is available.
Check Now	When pressing Enter, the tool connects to the Wi-Fi network. If there is an update: press Enter to download and install or ESC to cancel downloading. The user can always come back to this option to download and install.

APPENDIX

APPENDIX A: VEHICLE IDENTIFICATION NUMBER (VIN)

When using the TECH450 tool, it is important for the user to verify the Model Year to help insure looking for that proper sensor and using the proper vehicle COMs when necessary.

By using the vehicles VIN and locate the 10th digit from the left the user can in most cases accurately determine the vehicle's Model Year. Take that digit and reference the chart on this sheet. This will be the Model Year that needs to be selected on the tool.



10 TH Digit in VIN	Year	10 TH Digit in VIN	Year
W	1998	C	2012
X	1999	D	2013
Y	2000	E	2014
1	2001	F	2015
2	2002	G	2016
3	2003	H	2017
4	2004	J	2018
5	2005	K	2019
6	2006	L	2020
7	2007	M	2021
8	2008	N	2022
9	2009	P	2023
A	2010	R	2024
B	2011	S	2025

APPENDIX B: TPMS SYSTEM REVIEW



When cycling the ignition for off to run, the TPMS tell-tale should come on, and go off. This would indicate a system with no fault present.

Solid Light: Pressure Problem	Check the tyre pressures and adjust to the placard. NOTE: Some vehicles are equipped with sensors in the spare. Also, with some vehicles, over pressure may turn on the light.
Flashing Light: System Problem	System problems can range from faulty sensor(s) to sensors on the vehicle that haven't been learned to that vehicle.

APPENDIX C: MODES AND MODE CHANGING

Sensors can have many different "modes" when they have been read, such as Learn, Tool LF, YD Sleep, YD Rest, and Hi Norm Dly. Some of those are called sleep mode to preserve battery life.

Mostly, these modes are not important because the sensor will be supplied already in the correct mode to use. But for some sensors made by Continental, it is important that the mode is displayed as "Park", as otherwise, it will not work on the vehicle.

The TECH450 tool has the ability to perform the necessary mode change. If a sensor is shown as "Ship", "Test" or "Off" and the relearn toolkit provides the option "Set Sensor to Park Mode", please use this option to change the sensor mode into the correct one:

- Go to "Relearn" and select the vehicle (MMY).
- Press Enter when relearning procedure shows.
- Select the spanner in the upper left corner with the Up/Down buttons. Press Enter.
- Select "Set Sensor to Park Mode", and press Enter.
- Go to the wheel, hold the tool near the sensor, and press "Test".
- Repeat for each wheel.
- Start the Relearn procedure.

Also, some sensors are supplied in a mode where they cannot be read by the tool unless they are pressurized in a wheel. Some examples would be replacement sensors bought from a Ford dealership, and some Mitsubishi Continental sensors.

APPENDIX D: COMMS ERROR TROUBLESHOOTING

If a problem or error occurs during the COMMS process, follow the steps below before calling customer support.

Check vehicle ignition.

Vehicle ignition must be in the RUN position in order for the vehicle COMMS process to complete.

Check the cable to tool connection.

Ensure the cable is connected at the DB15 and thumb screws are finger tight.

Check the cable connection at the vehicle.

Make sure the OBD cable connection is good.

Verify Make, Model, and Year

COMMS can change from Model to Model and Year to Year. Verify the tool is set up to the proper MMY.

Verify tool power level.

If the tool has a low battery charge, this may affect the COMMS process. Charge the tool and try again.

TECHNICAL SPECIFICATIONS

Power Supply	Lithium Polymer rechargeable battery, not user serviceable
Max power consumption	1.5W Schrader TPM, 0.5W all others
Display	LCD 16-bit colour, graphic, resolution 320x240
Keyboard	7 keys, dust, water, and grease-resistant
Input/output	Micro-USB style USB used to Connect to PC for firmware update and audit file download.
Vehicle connection	Uses OBD cable to connect to the vehicle
Working environment	Temperature 0°C - 40°C, Humidity: 20-55%
Storage environment	Temperature -10°C - 50°C, Humidity: 20-60%
Dimensions	187mm x 107mm x 47mm
Weight (including batteries)	490g

Radio frequency bands in which this equipment operates:

2.4GHz - 32mW maximum power output.

315-433MHz - receive only

125KHz - 15uT @ 8cm maximum magnetic field

Simplified EU Declaration of Conformity

Bartec Auto ID Ltd hereby declares that this device is in compliance with the essential requirements and other provisions of Directive 2014/53/EU (RED).

The full text of the EU Declaration of Conformity is available at:

<https://www.bartecautoid.com/pdf/declaration-of-ce-conformity-tech600450-2021-english-signed.pdf>

Simplified UK Declaration of Conformity

Bartec Auto ID Ltd hereby declares that this device is in compliance with the essential requirements and other provisions of The Radio Equipment Regulations 2017.

The full text of the UK Declaration of Conformity is available at:

<https://www.bartecautoid.com/pdf/declaration-of-uk-conformity-tech600450-english.pdf>