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**Welcome to the Bartec TPMS Family! Hopefully you will find our tool and support to be the best! Please take a few moments to review this user guide in its entirety for instructions on all the features you find in your new Tech500.**

## IMPORTANT NOTICES

All specifications, illustrations and information contained within this manual are based on the most current information available at the time of publication. Bartec USA reserves the right to make changes at any time without obligation to notify any person or organization. Bartec USA will do its best to keep you the customer informed of any changes that might affect the tools performance. Important items will be called out by using “**NOTE.**” Information following this indication should always be paid attention to.



**Whenever you see this symbol, the information you are about to read is vitally important and should be committed to memory.**

## KIT CONTENTS

- Tech500 TPMS Tool
- SD Card [in the tool]
- Inductive Charging Pad w/ Power Supply
- Bluetooth USB Dongle (Adaptor)
- Re-Learn Magnet (for early model GM vehicles with sensors)
- USB Cable
- DB15 to OBDII Cable
- Tech500 Quick Start Guide
- Tech500 User Guide
- Kit CD

## FCC COMPLIANCE

FCC ID: SX8T500      IC: 5736AT500

Contains FCC ID: QOQWT12    IC: 5123A-BGTWT12A

Contains FCCID: YOPGS1011MIP      IC: 9154A-GS1011MIP

*This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.*

*Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

*Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

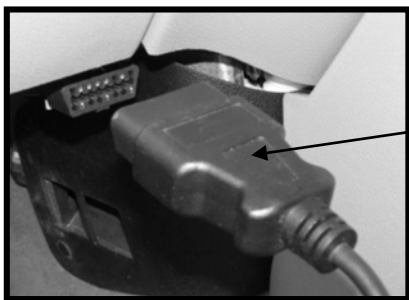
### 1.0 GETTING STARTED



Please register your tool on the Bartec website at [www.bartecusa.com](http://www.bartecusa.com). This is the best way to get information about software updates, new products and other important TPMS news. Bartec respects your information and keeps it private!

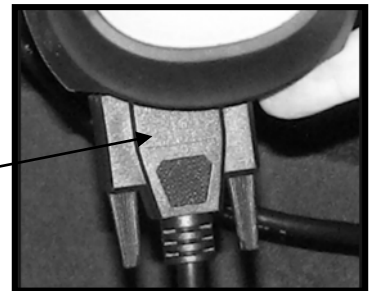
#### 1.1 Tool Layout and Connections

The Tech500 features a 7 button key pad for easy navigation of the various menus. Also, there are many connections points to the Tech500 for use in updating, exporting information, charging and programming to the vehicle.



OBD II Connection

Vehicle End

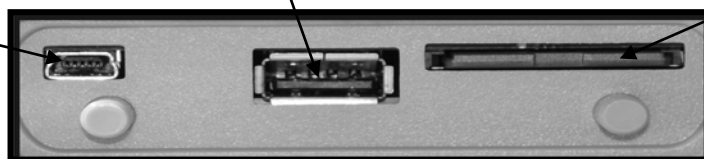


Tool End

USB Mini Port  
Updates and  
data retrieval

USB A Port  
for peripherals

SD Card  
Slot



## 1.2 Power On/Off

The Tech500 is powered on by a single press of the ON/OFF key. Upon power up, the screen displays the Bartec logo on the tool.

The Tech500 will begin to power down automatically after 3 minutes of inactivity, and fully shut off after 5 minutes of inactivity. To power the tool off at any time, press and hold the On/Off Key for approx 2 seconds – a good bye message will flash and the tool will shut off.

### NOTE:

The Tech500 automatically powers on when the charger or USB port is in use [auto power off is not operational during this time].

## 1.3 Tool Set-Up

Before using your NEW tool, there are a few things you will need to do to configure your tool for use. This will allow you to set the:

- Tool Language
- Display Contrast
- On Tool Clock – Date/Time



**This is very important to set the Date/Time in order for the connection process to work correctly.**

Lang.:

English  
Francais  
Espanol

Scroll and select the language you want to use  
Press Enter to Proceed

Display Contrast:

Set Value: 22

Using UP/DOWN arrow keys, adjust the contrast  
Press Enter to Proceed

Enter Date/Time

13:58, Aug/09/2001

Press TEST to Save.

Using UP/DOWN arrow keys, change the Time and Date  
Press Enter to Scroll left  
Press TEST when complete

Setup complete.  
More setup options are available under the MyTool Menu. To receive software updates please don't forget to register your tool.

SETUP Complete - Press ENTER to continue

### 1.4 Tool Display and Icons

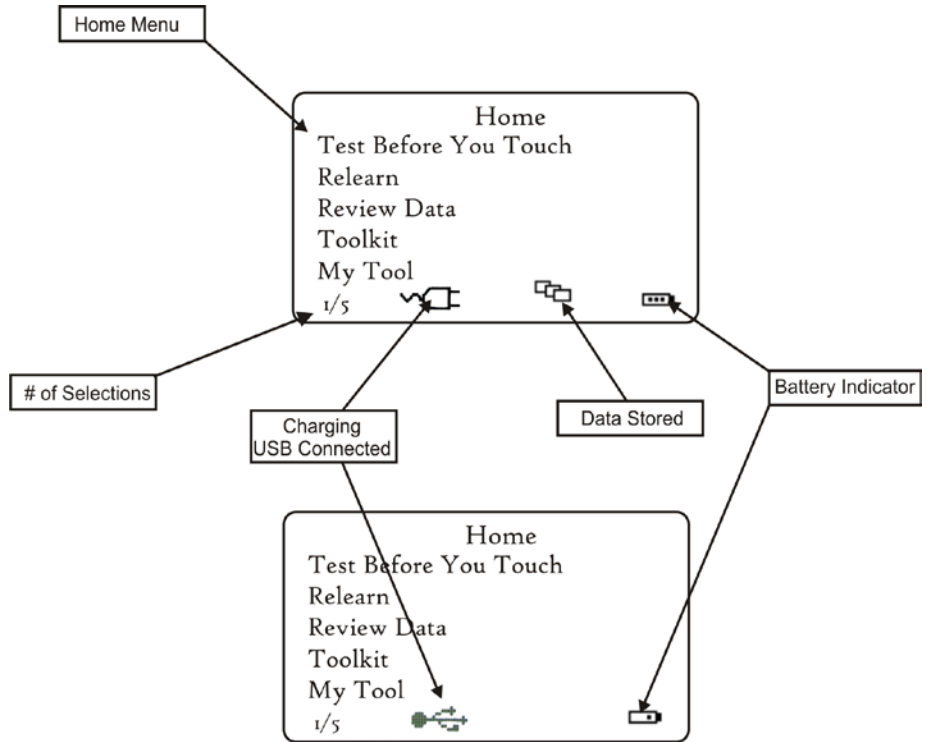
#### # of selections

The menu page number (e.g. x/y) on the status line indicates the menu page or item currently displayed. The first number- x- indicates the item number selected. The second- y- indicates the total number of items available.

#### USB Indicator

This status line indicator confirms the Tech500 is connected to the USB port of a computer.

Once communication has been established, results data can be viewed on the pc via the Mass Storage Device feature. (Use the PC explorer program) "HTM File"



When the USB lead is removed the USB icon will disappear.

### 1.5 Battery Indicator/ Charging

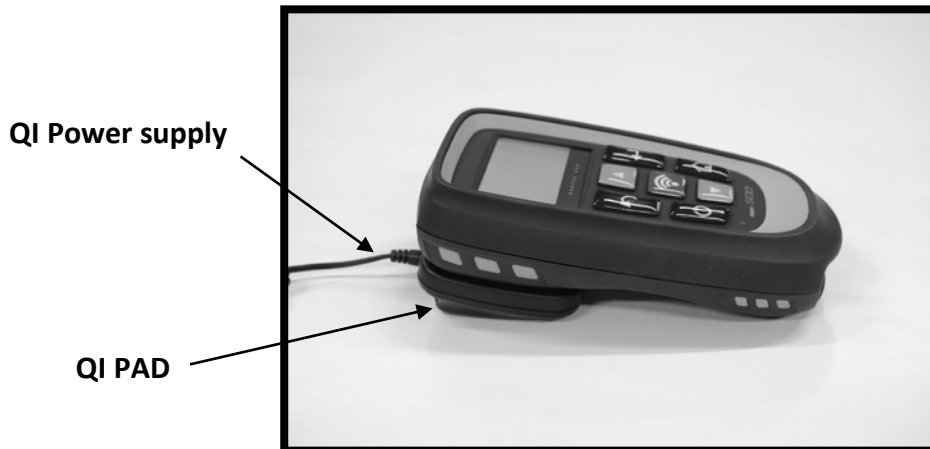
This status line Indicator will illustrate the remaining charge status of the battery.

As different TPM types will 'use up' differing amounts of energy, the indicator can only provide estimates of remaining life left before a recharge is required. The battery indicator will flash while charging.



## 1.6 Charging your tool [Inductive Charging]

The Tech500 is shipped with a fully charged battery, however it is recommended that you charge your tool a minimum of four [4] hours before using. Use the Quick Inductive [QI] Charging pad that is included in your kit. The QI charge system is a “smart” charging system, and will keep your tool fully charged. Simply leave your tool on the pad when not in use.



### NOTE:

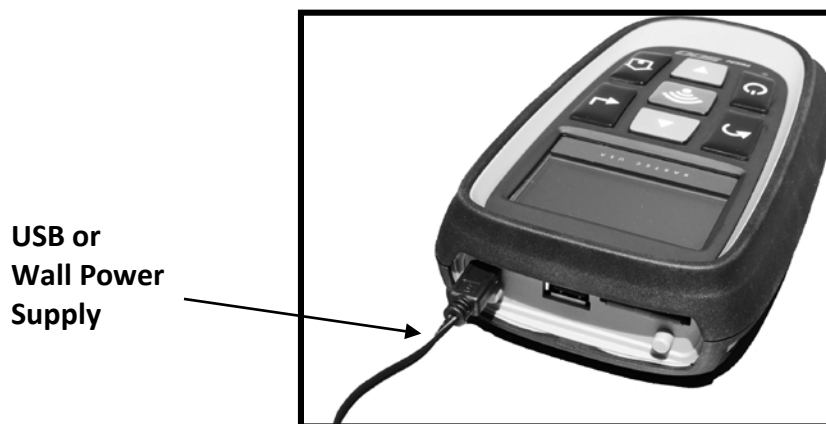
The QI charger is the preferred method of charging. You can use the supplied USB cable attached to a PC to charge as well. Only use the power supply or USB cable that is included in the Tech500 tool kit to charge this tool.



**Use of un-approved power supplies may damage your tool and will void the tool warranty.**

Alternate Charging Methods:

- A. USB Cable to PC
- B. Wall Power Supply (sold separately)



The Tech500 comes with a factory installed rechargeable battery. **Battery replacement must be done at the factory.**

**For optimum performance, always keep your Tech500 charged.**

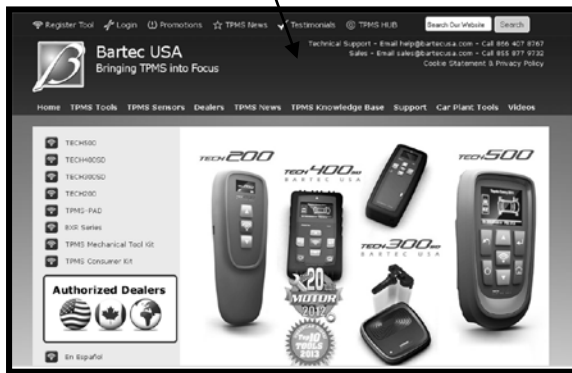
## 1.7 Installing TPMS Desktop

The TPMS Desktop is required to use the wireless features of the Tech500. This software is available from the Bartec USA website at [www.bartecusa.com](http://www.bartecusa.com) and is also loaded onto the KIT CD. The preferred method is installing from the Bartec USA website. The TPMS Desktop application is discussed in greater detail in section 4.0 of this user guide.



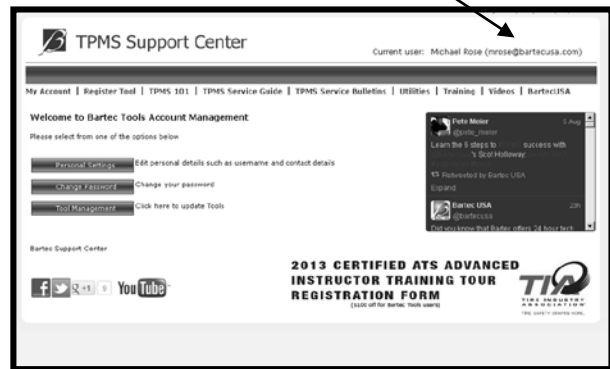
**This application must be loaded onto the PC or Laptop BEFORE using the Bluetooth or Wi-Fi features. Minimum system requirements: WinXP SP3 (Note: Microsoft will no longer support XP after 4/8/14)**

Link is at top of the BartecUSA site



[www.bartecusa.com](http://www.bartecusa.com)

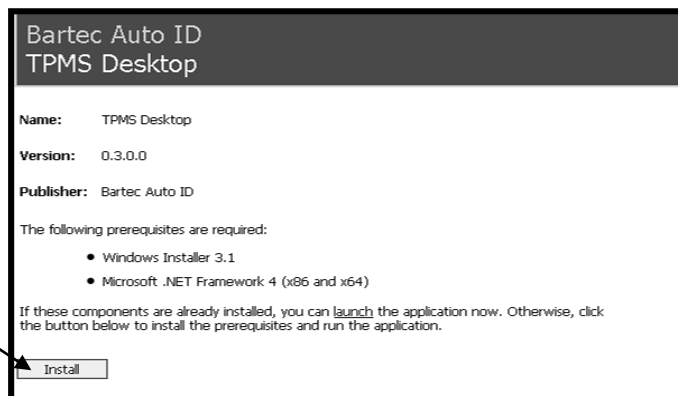
Link is also on the TPMS Support Center



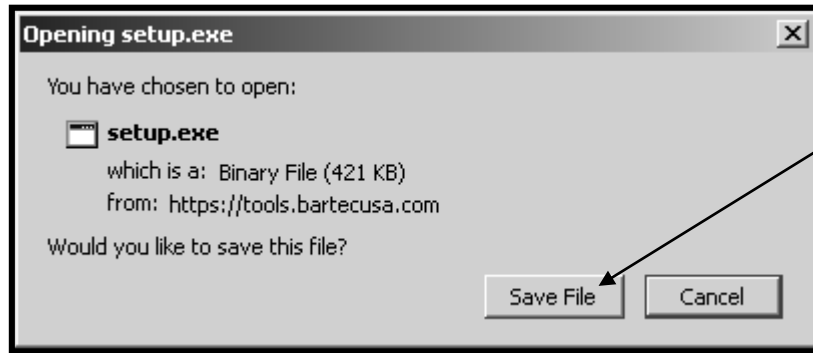
<https://tools.bartecusa.com/login.aspx>

Once you've clicked the link, this screen should open. Click INSTALL to start the process of loading the software to the PC or Laptop.

Click Install

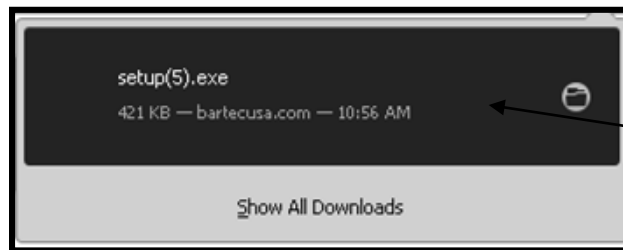


The installation wizard should launch and guide you through the install process. The first thing you will be prompted to do is save the "setup.exe" file.



Click SAVE FILE

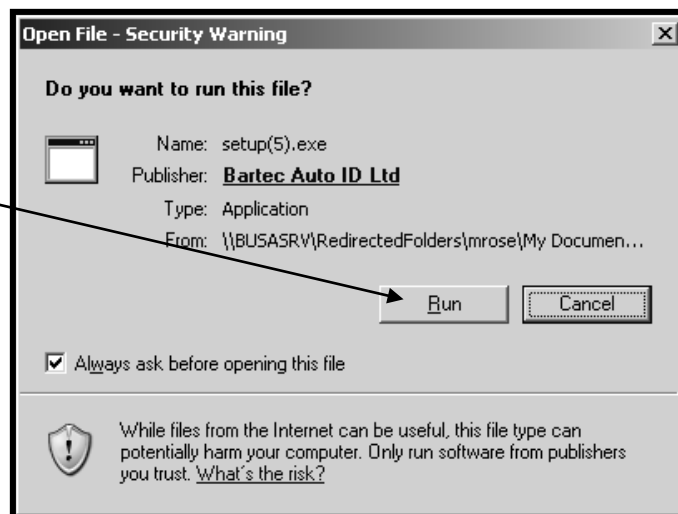
On most computers, the file will be saved to a "downloaded" folder. Your computer will either prompt you that the down load is complete, or you may have to look for it on the desk top.



Click on file here to launch

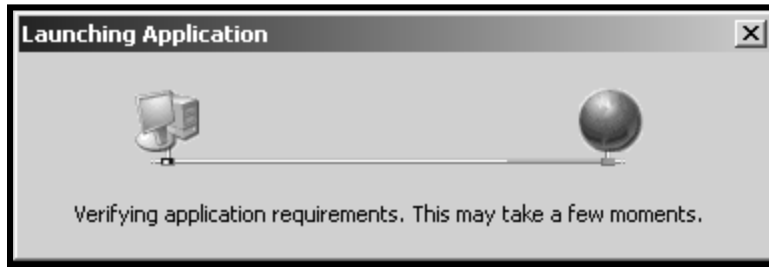
Once "setup.exe" is launched, you will see the following window. Click RUN to start the install.

Click on run to start install





The install wizard will advise you of the install status. Follow the onscreen instructions carefully.



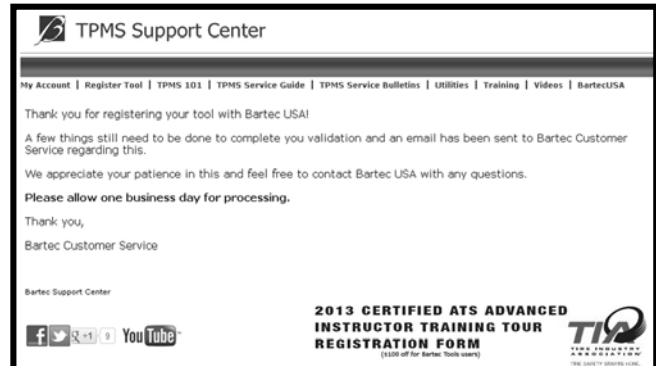
Once installed and running, the TPMS Desktop will help you organize AUDIT reports, keep your tool current, and manage your customers, all from a single access point. Once installed, click the REGISTER TOOL link at the top to begin creating your online account at [www.bartecusa.com](http://www.bartecusa.com) and registering your new Tech500 tool!



Register Tool Link

### 1.8 Registering your tool

You can register your Bartec Tech500 @ [www.bartecusa.com](http://www.bartecusa.com). Follow the on-screen prompts filling in your information and tool serial number. Please have your tool serial number, date of purchase and place of purchase in order to properly register your tool.

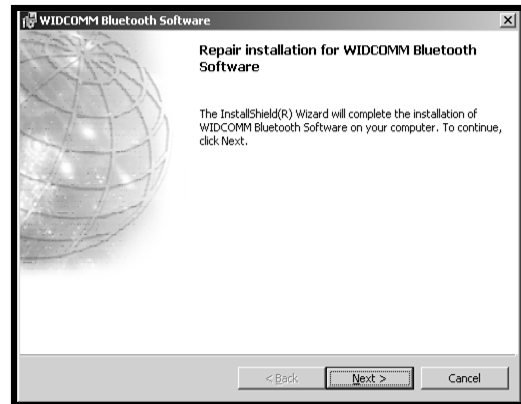
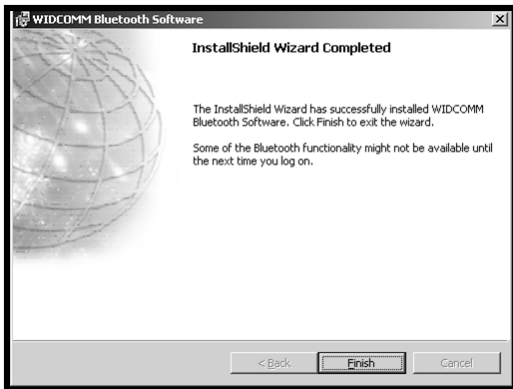
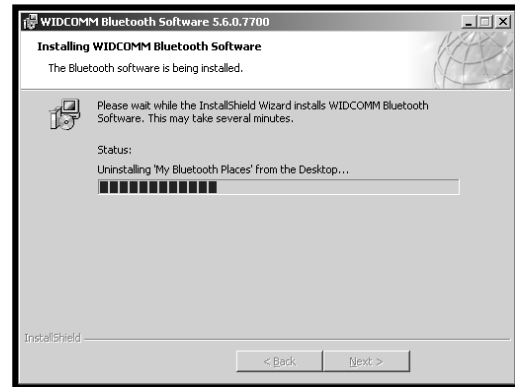
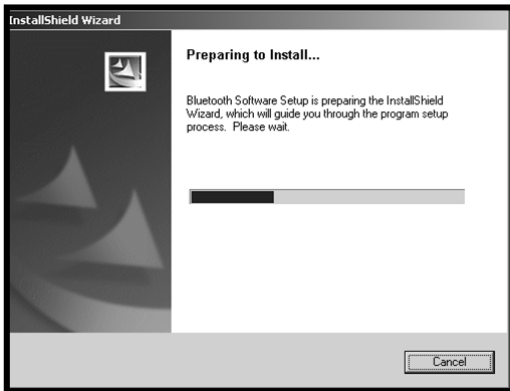
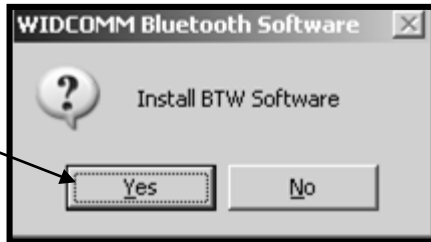


### 1.9 Setting Up Bluetooth

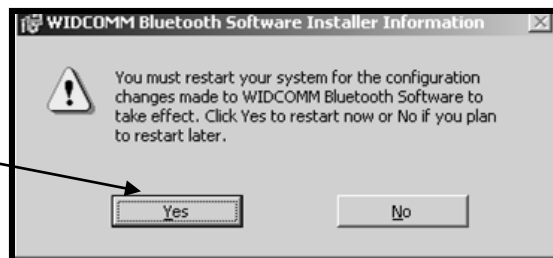
For your convenience, Bartec has included a Bluetooth Dongle [adaptor]. This is to be used with PC's or Laptops that do NOT have Bluetooth connectivity already installed. Follow the install and setup instructions that are included in this kit. Begin by inserting the set-up CD and install the necessary driver and software.

**STOP** Insert the CD BEFORE installing the dongle [adaptor]. Follow the instructions of the install wizard.

Click yes to install software and drivers



Make sure to reboot the computer



[Refer to section 2.10 and 4.3 for information on connecting to your PC]

## 1.10 Updating your Tool

Once your tool is registered, verify the software level loaded to the level available online and update your tool if necessary. This can be done by logging into your website account, or using the TPMS Desktop. The following is the long method; it is easier and faster to follow the instructions in the TPMS Desktop UPDATE application.

PC METHOD - The tool is compatible with PCs running Windows operating systems (version XP or Newer). USB ports can be either version 1 or 2.

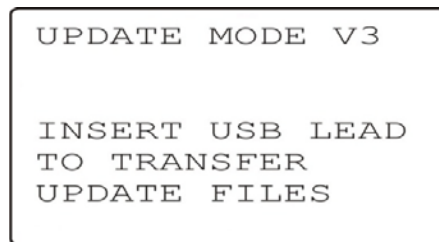
*BEFORE YOU CAN UPDATE, YOU MUST 1<sup>st</sup> DOWNLOAD THE FILE FROM YOUR TOOL ACCOUNT*

### Step 1:

Open rubber boot on “nose” of the tool. Plug your USB cable to the computer ONLY. Make sure computer is on and you have no programs running. Power the Tech500 on, and from the Main Menu, Select “My Tool”, and then select “Update Tool”.

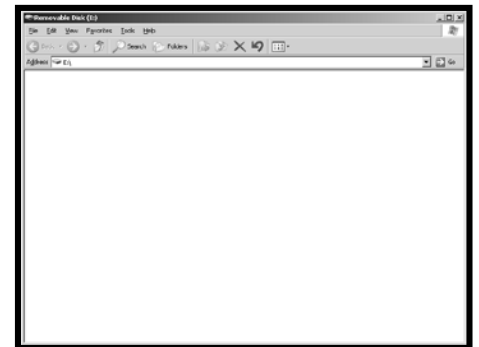


Tool will prompt user to “Insert USB Lead to Transfer Update Files”. Insert the USB cable to the Tech500.



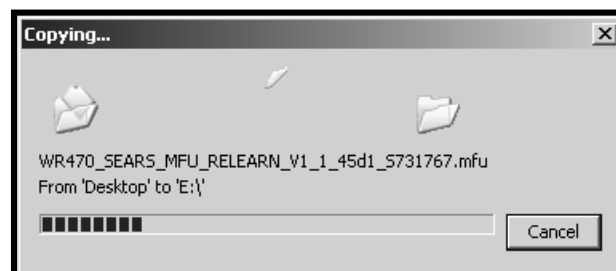
### Step 2:

Your tool should open a window on your computer screen. The tool now is seen by your computer as a Removable Disk.



### Step 3:

Copy and paste – Drag and Drop the Update file (\*.MFU) provided to you into the Removable Disk Window. Once Transfer is complete, disconnect tool.



Step 4:

The tool will now load the file update to the operating system.

Once the update is complete, the tool will shut itself off.

```

MSD BSL V2SDF
APP.V0.1.43

VERIFY COMPLETE

ERASE COMPLETE
PROGRAMMING 10%

```

SD CARD METHOD - In order to receive updates by SD card, you must request to be part of the SD card program

Step 1:

Open rubber boot on “nose” of the tool. Remove OLD SD card, keeping it separate from the new card. Insert the NEW SD card.



Power the Tech500 On, and From the Main Menu, Select “Update Tool”.

```

Main Menu
Delete TPM Data
Tool Info
Update Tool
Settings
Unknown Selection
▲▼=Scroll ←=Select
1/8 [USB] ●x4 [Folder] [Battery]

```

Step 2:

The tool will now load the file update to the operating system.

Once the update is complete, the tool will shut itself off.

```

MSD BSL V2SDF
APP.V0.1.43

VERIFY COMPLETE

ERASE COMPLETE
PROGRAMMING 10%








```

## 2.0 USING YOUR TECH 500

In this next section, you will learn how to take advantage of the class leading features of your Tech 500 TPMS Tool. The Bartec Tech 500 All-in-One TPMS tool is a Relearn and Diagnostics tool with OBD and Wireless functions. With its rugged design and robust connections, including the OBD Cable, you can use your 500 for:

- Test Before You Touch
- Vehicle Relearns
- TPMS Diagnostics
- RKE and Passive Key Testing

### 2.1 Button Functions

	<b>Up Arrow Key</b>	Navigates up within the current menu
	<b>Down Arrow Key</b>	Navigates down within the current menu
	<b>ENTER Key</b>	Navigates to the next menu or actions the currently selected item
	<b>Back/ESC Key</b>	Navigates to the previous menu item
	<b>TEST Key</b>	Commence a TPM test (Activation). Only works on Operations Screen
	<b>Home Key</b>	Always returns to the Home Menu
	<b>Power Key</b>	Power you tool on and off

## 2.2 Menu System Overview

The Tech500's menu system provides a hierarchy of instructions and commands. The top line of the display will always indicate the current menu selected. The home key will always return to the Main Menu screen with 'Select by Vehicle' highlighted.

## 2.3 Home Menu



### 1. Test Before You Touch

This Item is a sub menu, pressing the Enter Key will take the user to the "Test Before You Touch" menu. The user should select the vehicle make, model and year. Used when doing a pre-service scan.

### 2. Relearn

This Item is a sub menu, pressing the Enter Key will take the user to the "Relearn" menu. The user should select the vehicle make, model and year. Used when relearning the sensor ID's to the vehicle.

### 3. Vehicle Data

This item is a sub menu, pressing the Enter Key will take the user the option for reviewing the data on screen or sending the stored data wirelessly.

### 4. Toolkit

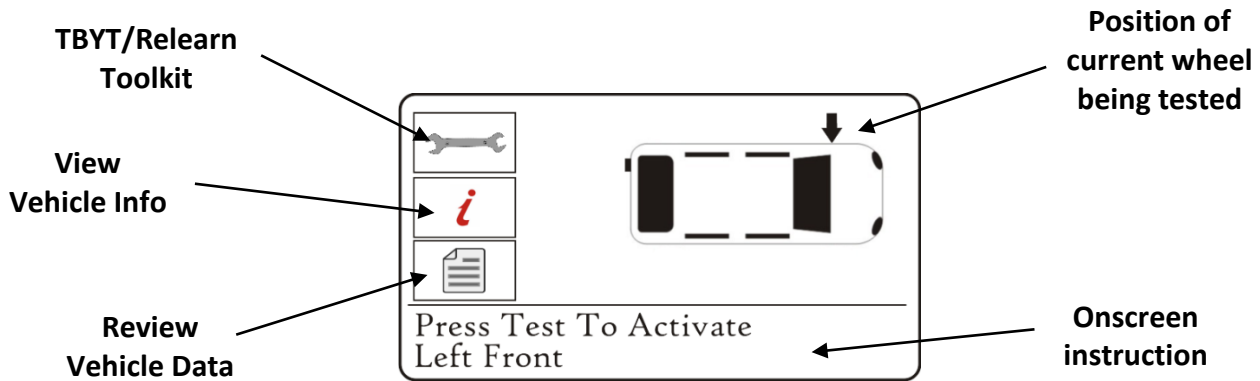
A sub-menu in which you will find your options for EZ sensor, RKE monitor, and UHF monitor.

### 5. My Tool

Sub-menu containing important info about the tool itself.

### 2.4 Operations Screen

This screen is where you will complete all sensor testing and relearn steps.



#### Successful Sensor Read

TPMS sensor was successfully activated and decoded. Displays pressure at wheel location.

#### Wrong Sensor Type

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

#### Failed Sensor Read

No Sensor Activation or Decode. Possible causes: wrong sensor fitment or non-functioning sensor. 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 you to re-read those sensors.

#### No Pressure

Sensor IDS read from ECU.

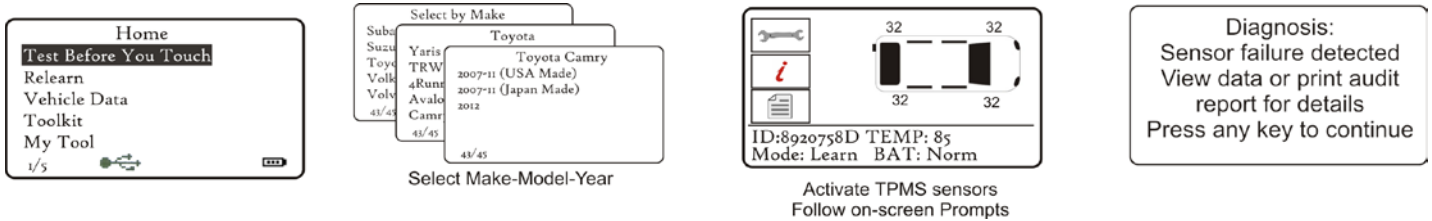
#### Low Battery

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

32		Successful Sensor Read Displays Pressure
?		Wrong Sensor Type
X		Failed Sensor Read Wrong or Bad Sensor
D		Duplicate ID
NP		No Pressure Id's Read Through OBD
		Low Sensor Battery

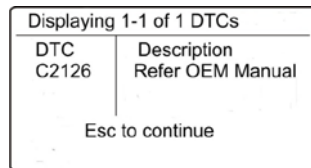
## 2.5 Test Before You Touch

TPMS is a process. With that Bartec has integrated that process to the tool. The 1<sup>st</sup> step with TPMS is to conduct a Test Before You Touch. (Note: operator can skip TBYT and go directly to RELEARN although not recommended). Test Before You Touch will prompt you through getting a status of the vehicle prior to service by verifying the sensors are working and when supported, verify the Diagnostic Trouble Codes (DTC).



**NOTE:**

If there is OBD coverage the tool will prompt user to connect to OBD and retrieve Diagnostic Trouble Codes



The Tech500 has the ability to Read out vehicle DTCs (Diagnostic Trouble Codes). Once read, while in most cases the tool gives a short description, you will need to reference these codes with an external reference to determine the codes definition.

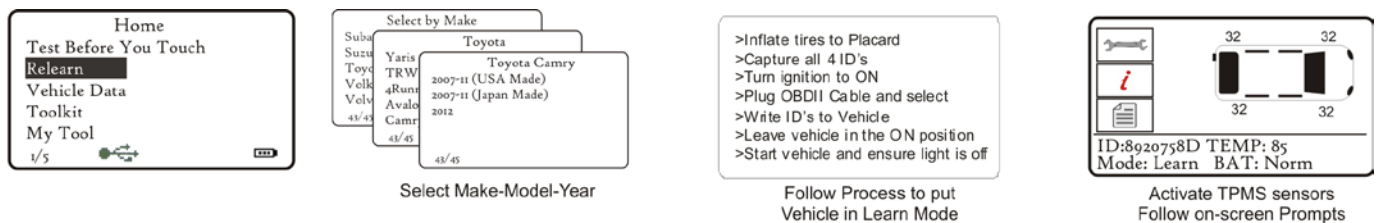
## 2.6 Relearn

- Stationary Relearns
- Active (Drive) Relearns
- OBD Relearns
- OBD Assisted Relearns
- Indirect Systems

### Stationary Relearns:

Stationary Relearns use the vehicles on-board TPMS system to listen for transmissions from TPM sensors while the vehicle is in a “Learn Mode”. This is usually achieved through a series of actions performed on the vehicle to place the vehicle into this mode. Once the vehicle is in Learn Mode, using your Tech500 to activate the sensors, the vehicle will listen for the sensor IDS and learn them to the vehicle.

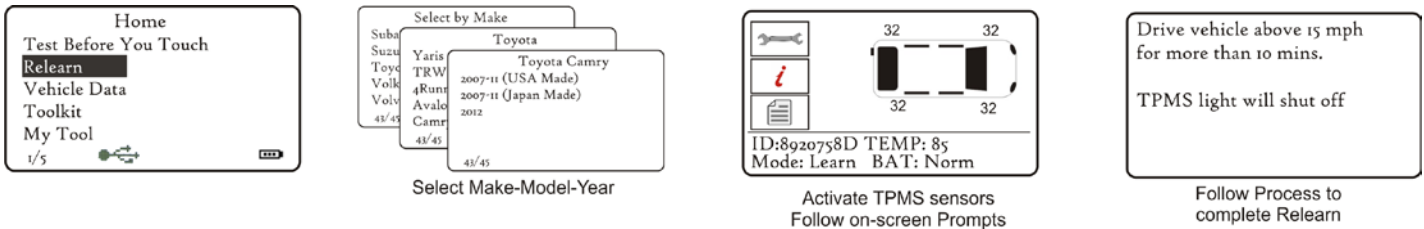
Using your Tech500 to perform Stationary Relearns:





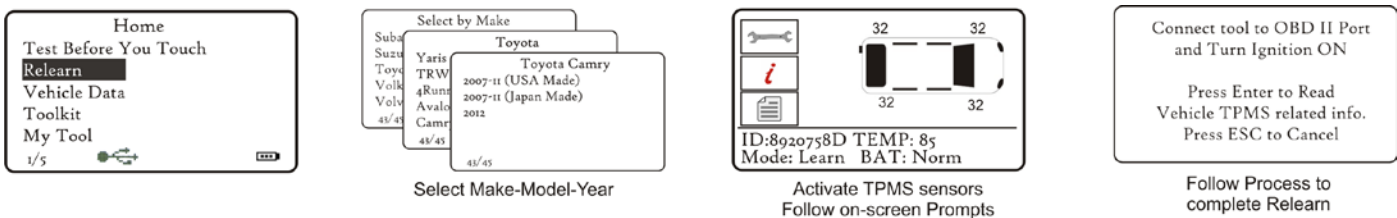
## Active (Drive) Relearns:

Some vehicles can be reset by driving. Refer to the on-screen re-learn procedures for details on how far/long to drive.



## OBD Relearns:

Connection to a vehicle allows the Tech500 to directly program the vehicle electronics module with TPM ID's. Note that not all vehicles support vehicle communications modes. Once 4 TPM ID's are stored within the Tech500, it can be connected to the OBD interface using the provided cable.



During vehicle communication, the BACK key is inhibited. Should the process be commenced inadvertently, the tool can be left to timeout on its own accord - approximately 20 seconds.

Once the communication is complete, the tool will flash IDS Written Successfully.

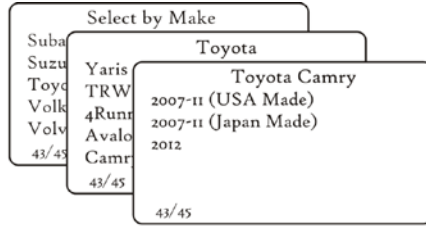
*If an Error Message comes up during the COMS process, Refer to Appendix F for COMS error trouble shooting.*

## OBD Assisted Relearns:

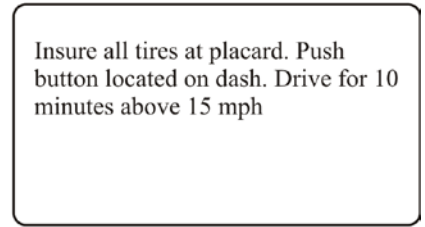
This relearn process applies specifically to the Mitsubishi Lancer/Outlander/Mirage vehicles and will require the use of the WRTOBD002 Mitsubishi Adaptor Cable. This process requires your Tech 500 to remain connected to the OBDII port during the relearn process while you activate the sensors (either by reducing the pressure or activating them with a 2<sup>nd</sup> tool)

**\*\*For more details refer to Technical Service Bulletin RP-201-014**

**Indirect system** – Vehicle may require calibration at point of service or replacement. No wheel sensors on this type of TPMS.

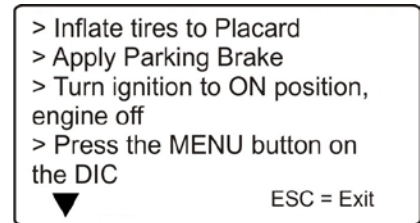
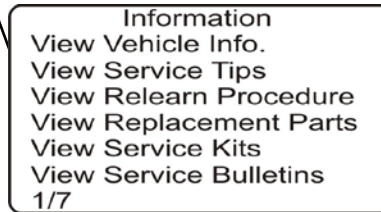
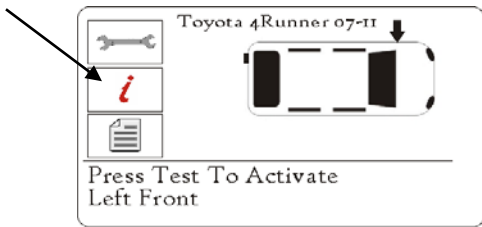


Select Make-Model-Year



Follow Process to complete Relearn

**2.7 Viewing Full Relearn Procedures**



**2.8 Review data:**

This menu- when selected- gives direct access to specific screens that display the TPM data. No menu page name is provided- instead, the screen provides all of the TPM Data available from the TPM Type read; this may include: TPM ID (Hexadecimal & Decimal) Battery State, Temperature and Pressure.

Not all TPM's provide the same data.

ID (Dec)	PSI
LF 2363408583	0.0
RF 2363	
RR 2360	
LR 2358	
SP Untes	

ID (Hex)	°F
LF 8CDEC0C7	64
RF 8CD	
RR 8CB	
LR 8C9A	
SP Untes	

Mode	Battery
LF Hi Store	OK
RF Hi Store	OK
RR Hi Store	OK
LR Hi Store	OK
SP Untested	

3/3

Displaying 1-1 of 1 DTCs	
DTC	Description
C2126	Refer OEM Manual

Esc to continue

### 2.9 Toolkit

#### Program Sensor

The Tech500 offers a unique feature; access to program various aftermarket sensors. For Alligator Sens.it, Orange, and Schrader EZ-sensor, simply hold the sensor against the “nose” of the tool while programming. Follow all on screen instructions relating to sensor programming. For more information, please log into the tools.bartecusa.com account.



#### RKE Test

Hold the Key Fob as shown, and press the function buttons on the FOB. The Tech500 will check only for a signal present. Verifying the Key Fob is transmitting is important when performing relearn processes that use the Key Fob.



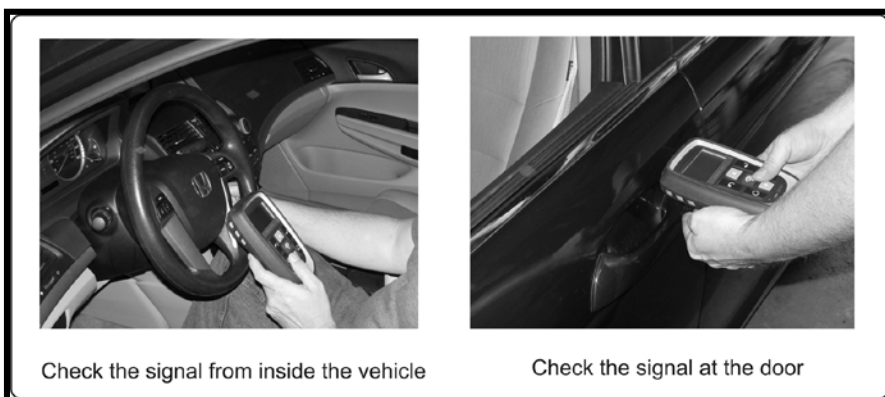
#### UHF Monitor

TPMS sensors transmit a UHF signal (this is how it communicates with the vehicle). Using this feature allows the operator to search for those signals. This feature is used for advanced diagnostics to determine if our signals may be causing issues during sensor activation and vehicle relearns, or to see if the sensors are transmitting.

#### Passive Key

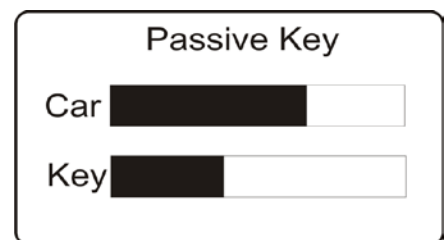
Passive Key or Push Button Start vehicles generally send out a LF signal to activate the Key-Fob. Bartec has incorporated the ability to detect those LF signals, and display that information on the screen of your tool.

Depending on the Make-Model-Year you are testing, results may vary. This feature is a basic pass/fail test, and assists the technician in determining if there is a problem with the vehicle transmitting the required signal to activate the key-fob on the passive key system.



Check the signal from inside the vehicle

Check the signal at the door



## 2.10 My Tool

### Settings

TPM ID:

Select whether the tool displays the TPM ID in DECIMAL or HEXIDECIMAL

Pressure:

Change how pressure is displayed on the tool screen. Choose between PSI or Bar.

Temperature:

Select units between Celsius or Fahrenheit.

Display Contrast:

Adjust tool display contrast.

Lang.:

Select Language for tool. Select English, Spanish or French.

Profile:

Allows user to select the profile. For more information, visit the [tools.bartecusa.com](http://tools.bartecusa.com) site.

### Tool Info

Gives the operator the ability to reference:

- Software Version currently loaded
- Build Date of that Software
- Serial Number

### New Features

Selecting New Features will allow you to reference the features and additions for the software release currently loaded to your tool.

### Update Tool

Puts tool into "Update Mode". For more details and the update process refer to UPDATE TOOL section of User Guide.

## Usage

Gives the operator the ability to track the number of:

- Power Cycles
- Sensor Activations
- OBD Relearns

## Date/Time

The Tech 500 has an internal clock. This will allow for the data storage to be date/time stamped based on when the action took place, and not on when the data was actually viewed. Using this setting will allow the operator to adjust the date/time when needed. NOTE: upon initial start up or complete power loss, the tool will prompt the user through this as part of the tool set-up.

## Networks

Access to manage wireless settings for Bluetooth and Wi-Fi.

To ENABLE your Bluetooth: Navigate to My Tool, Networks, Bluetooth, highlight Enable and press the ENTER key.



**Make sure to Enable the Bluetooth Network in order to communicate with you TPMS Desktop software.**

## Support

On screen reference for Bartec USA Technical Support:

**Toll Free Phone: (866) 407-8767**

**Email: [help@bartecusa.com](mailto:help@bartecusa.com)**

### 3.0 TOOL POSITIONING/READING A SENSOR

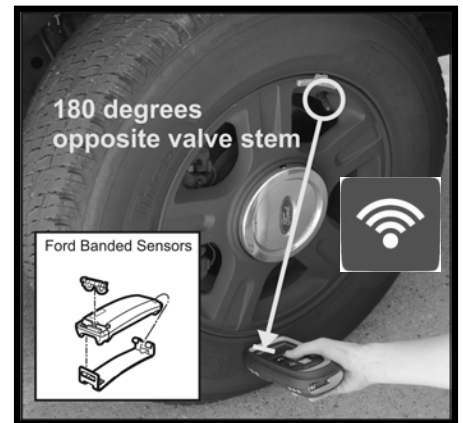
#### 3.1 Standard LF (Low Frequency) Activation



Proper tool positioning is important to insure sensor activation and decode. Place the Tech500 on the tire, at the TPMS sensor, aimed towards the sensor location as shown above.

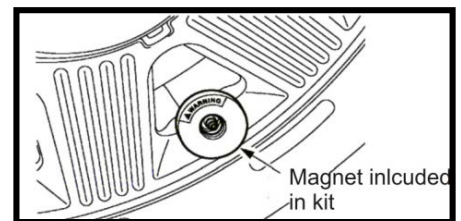
**NOTE:**

Ford Banded sensor's, the tool should be held 180° away from the stem.)



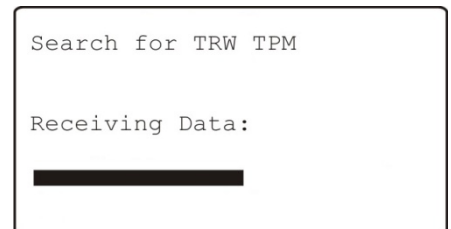
#### 3.2 Magnet Activated Sensors

If the TPM requires a magnet, place the magnet over the stem and then place the tool alongside the stem- while pressing the test key.



#### 3.3 Δp [lowering pressure] activated sensors

If the sensor requires tire deflation (of the order of 10PSI), then deflate the tire 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. The progress bar shows the maximum possible time for a successful read- different makes of TPM respond at different speeds/ time intervals.

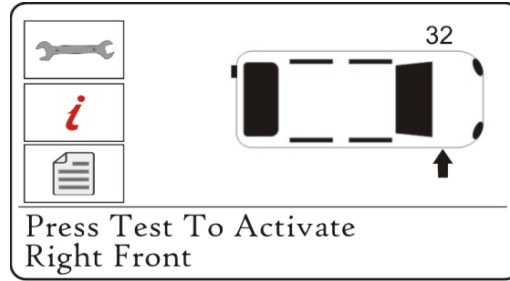


Sensor activation can be aborted at any time by pressing the BACK key. When the activation is aborted, the user will be returned to the previous menu.

### 3.4 Sensor Reponses

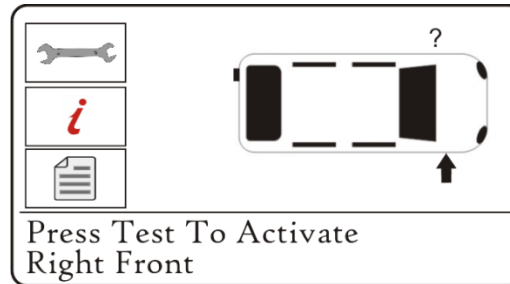
#### Sensor Found Response

If there is a successful TPM Read, then the Tech500 will show the air pressure stored in that wheel.



#### Incorrect Sensor Found

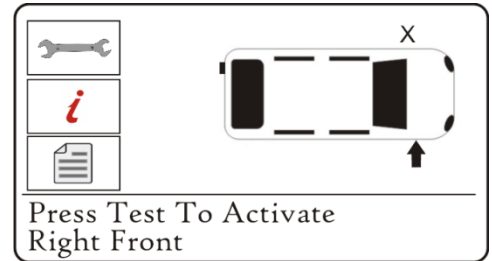
A TPM sensor that uses the same LF activation as the correct sensor for the Make, Model, and Year selected has been found. Since there are many TPM sensors that look alike, it can be easy to fit the wrong sensor, or have been supplied the wrong sensor.



If you get a ? during testing, verify the MMY you have selected as well as the sensor part number that was fitted.

#### Sensor Not Found Response

If the search period expires without reading a TPM then the Tech500 will emit a single Audible Beep and indicate on the display that no TPM was found.









The TPM Data will still be stored but will indicate that the TPM Failed to Read if the sensor fails 3 times.

## 4.0 TPMS DESKTOP

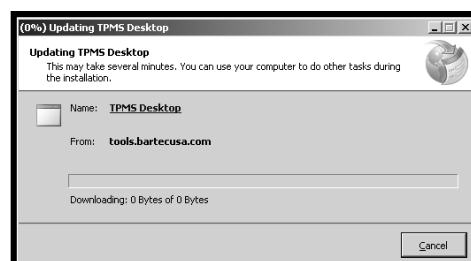
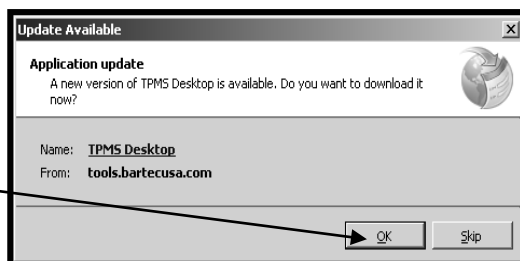
### 4.1 Desktop Applications

Bartec USA has included TPMS Desktop, your Tool Management Software Suite. Bartec has created this software to enhance your ability to provide complete TPMS diagnostics and service. The applications included in the TPMS Desktop are as follows:

Application	Description	Function
	AUDITS	Access, Store, and Organize the Audit Data from your TPMS tools obtained from Test Before You Touch and Relearns.  Sort by Date and/or Make-Model-Year
	UPDATES	Access to tool management and software updates for your TPMS Tools. Automatically retrieves update files from your current registered account!
	VEHICLE LOOK UP	Look up the vehicle to determine the relearn type and what programmable sensors are covered and other TPMS related information.
	SETTINGS	Configure the settings for TPMS DESKTOP including the Bluetooth and Wi-Fi connections.  Access activity log when requested for support
	TPMS PAD	Launches the software to run your TPMS Programming Accessory Device [PAD].
	TRAINING VIDEOS	Direct link to Bartec's on-line video library. Internet connection is required

From time to time, Bartec will automatically prompt an update to the TPMS Desktop. This will happen through your internet connection and when updates are available, follow the instructions on the screen.

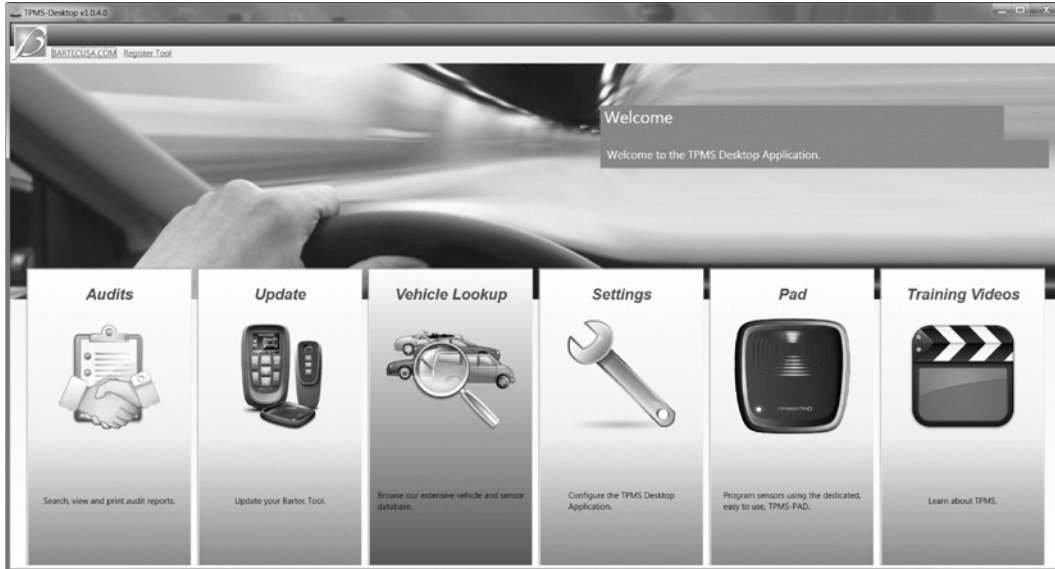
Click OK to install update





### 4.2 TPMS Desktop Home Screen

At the Home Screen, you will be able to Navigate TPMS Desktop, accessing Audit Data, Tool Updates, Vehicle Data, Settings, and launch Bartec’s TPMS PAD. For a detailed explanation of each of the applications and functions of the TPMS Desktop, click the User Guide located within the tab at the top of the Home Screen, shown below.



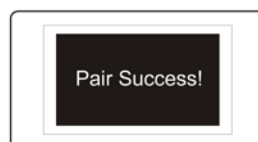
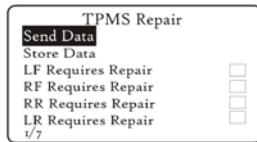
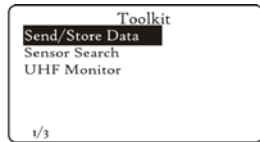
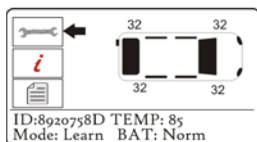
**Before launching the TPMS Desktop, please make sure your PC is Bluetooth ready (if using the provided dongle, please make sure the dongle is inserted and drivers loaded. [Refer to section 1.5]**

### 4.3 Managing your Bluetooth Connection

- Enabling you Network on your Tool
- Pair with TPMS Desktop

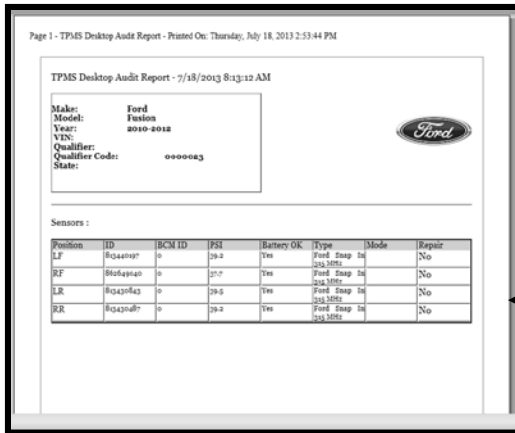
To Enabling the Bluetooth Network on your Tool navigate to MyTool and adjust your settings to Enabled [Refer to section 2.10]

In order to transfer data, you must 1<sup>st</sup> PAIR your Tech500 to your TPMS Desktop software. During the SEND Data transmission, if the tool is NOT PAIRED, it will prompt you through a series of on screen messages to set this up.



### 4.4 Audits

Using the AUDITS application within the Desktop, you can retrieve valuable vehicle information wirelessly through your Bluetooth connection. Click the AUDITS icon to launch the application. The first screen you will see is a list of the most current records stored. Click on sensors or DTC's to expand the record and see the appropriate detail. Click on the print icon to open the full audit report suitable for printing.



### Viewing the Audit Files

To begin using the Auditing System ensure that the tool has some data available, and then connect the Tech500 to a PC via its USB lead with TPMS Desktop open. The software will begin communicating with the Tech500. Once communication is established the Tech500 will act as a MSD (Mass Storage Device).

### Leaving Audit Mode

To leave the Audit mode and re-enable the Tech500 simply remove the USB lead.

## 4.5 Updates

Using the UPDATES application within the Desktop, you can easily check the status of your tool [whether it is up to date, or registered]. Simply click the icon to launch the application, then connect your Tech500 tool using the USB cable. The screen you see will list your tool and the status. If you are in need of an update, click the UPDATE button and the application will walk you through the process.



## 4.6 Vehicle Look up

The VEHICLE LOOK UP application provides basic TPMS information by MAKE MODEL and YEAR. There is a quick link to the Bartec TPMS HUB for a full description of TPMS data, procedures and part look up data.



## 4.7 Settings

Click in the SETTINGS icon to get a quick view of the current settings for you PC, tool and software.

## 4.8 TPMS PAD

Click in the TPMS PAD icon to get a launch the application to program aftermarket replacement sensors using the Bartec Programming Accessory Device [PAD] sold separately.

## 4.9 Training Videos

Launches user to Bartec's Online Training Video Library. Internet connection is required.

## 5.0 TOOL SERVICE

The Tech500 has been designed especially for the rugged automotive repair shop. When properly cared for and maintained, it will provide years of service. However, accidents happen, and when they do, Bartec stands at the ready to deliver excellent support and service to get you up and running again.

### 5.1 Proper Care and Cleaning

Like all electronic tools, your Tech500 should always be kept in a safe place away from liquids and damaging chemicals. From time to time cleaning of the enclosure and the screen will be required. Never apply chemicals or cleaners directly to the tool. Use a mild spray cleaner, applied to a soft cloth to wipe the external surfaces of the tool.

### 5.2 Service

The Tech500 is not field serviceable. If damage occurs, or the tool does not power on, follow these steps to get you back to running again:











- 1) Contact our Technical Support Team with your concerns. Please make sure your tool is registered and have your serial number ready
- 2) If the support team cannot correct your issues in the field, they will start the process for a Return Material Authorization (RMA)
- 3) Our support team will pass your information along to our repairs department who will assist you with every detail on processing your return
  - a. RMA #
  - b. Ship to address
  - c. Confirm the ship back address



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

For more information on Returning Products, please see our Warranty Section

## 5.2 Spare Parts

Item	Description	Bartec Part Number
	USB Cable	WRT300USB
	1 Piece OBD Cable	WRT400OBDC
	Wall Mount Power Supply	WRT400PWS
	Inductive Charging Pad w/ Power Supply	WRT500PAD
	TPMS Magnet	WRTMAGNET
	SD Card	WRT500SDCARD
	User Guide	WRT500UG
	Quick Start Guide	WRT500QSG
	SUL (Software Update License) 1, 2, or 3 year	WRT500SUL1 WRT500SUL2 WRT500SUL3
	Bluetooth Dongle	WRTBTDONGLE

## 6.0 BARTEC TPMS TECH SUPPORT

For technical support, please call us at 866-407-TPMS (8767). You can also contact us by email: [help@bartecusa.com](mailto:help@bartecusa.com) or visit our website [www.bartecusa.com](http://www.bartecusa.com) for a complete directory.

**PHONE - (866) 407-TPMS (866)407-8767**

**E-MAIL - [help@bartecusa.com](mailto:help@bartecusa.com)**

**HOURS OF OPERATION - 8am-8pm EST Monday-Friday**

For efficient and accurate service, please have the following information ready when contacting us.

- **Tool Serial Number:** This allows the call info to be added to our database for future reference.
- **Make, Model, and Year:** Support Team will need this information to reference any information on this end.
- **Have your tool registered:** Gives you access to Technical Information on the website that may assist you with your current issue.
- **Sensor Part Number:** if you have installed 1 or more sensors to this vehicle, please have the part number ready in case the support team needs to reference this information.
- **Make sure tool is updated to latest software:** Having the latest software will ensure your tool has all the latest info and features.
- **What is the TPMS light doing:** Is the light on Solid or Flashing?
- **Having vehicle in house:** Having the vehicle in house will allow the tech support team to walk you through the situation.



## APPENDIX A: GLOSSARY

TPMS – Tire Pressure Monitoring Systems, sometimes referred to as RTPMS.

Indirect System – TPM system that uses the ABS wheel sensors.

Direct System – TPM system that has sensors in the wheels that use RF.

LF – Low frequency, usually 125 kHz with respect to TPMS technology.

Continuous Wave – Type of LF signal that wakes Schrader Style Sensors.

Modulated Wave – A “patterned” LF signal that is designed for specific sensors.

UHF – Ultra High Frequency, 315 and 433.92 MHz, what the sensor transmits.

Re-Learn – The process of registering the sensor ID’s to the car.

Stationary – Vehicle is put in learn mode and sensors activated

Auto- Sensors are activated to verify working and vehicle is driven

OBD- Sensor are activated and IDS are uploaded thru OBD

Indirect- NO SENSORS. Usually a drive method to reset

Hi-Line Vehicle – Type of car that has wheel arch initiators and usually a graphic display.

Lo-Line Vehicle – Type of car that requires a tool to repair and only has warning light.

Bluetooth is a wireless technology standard for exchanging data over short distances

WLAN or WiFi a local area network that uses high frequency radio signals to transmit and receive data over distances of a few hundred feet; uses ethernet protocol

Inductive Charging or Qi (also known as "wireless charging") uses an [electromagnetic field](#) to transfer energy between two objects. This is usually done with a charging station. Energy is sent through an [inductive coupling](#) to an electrical device, which can then use that energy to charge batteries or run the device.

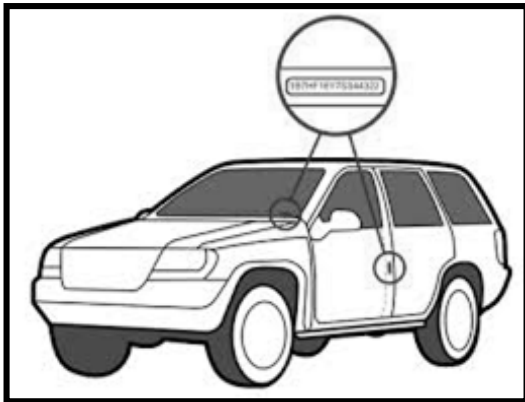
Passive Key Technology (also referred to as I-Key) Key systems on vehicles that operate wirelessly and use a push button start

RKE Remote Keyless Entry

**APPENDIX B: Vehicle Identification Number (VIN)**


When using the Tech500, it is important to verify the Model Year you are working on to help insure that you are looking for that proper sensor and are using the proper vehicle COMs when necessary.

By using the vehicles VIN, not the manufactured date, you can accurately determine that vehicle’s Model Year. Refer to that vehicle’s VIN, and locate the 10<sup>th</sup> digit from the left. Take that digit and reference the chart on this sheet. This will be the Model Year that you will want to select on your tool. The VIN is most commonly located at the base of the windshield on the DRIVER’S side, or on the tire placard in the DRIVER’S side door jamb as per the diagram below.



10 Digit in VIN	YEAR
W	1998
X	1999
Y	2000
1	2001
2	2002
3	2003
4	2004
5	2005
6	2006
7	2007
8	2008
9	2009
A	2010
B	2011
C	2012
D	2013
E	2014
F	2015
G	2016
H	2017
J	2018
K	2019

3VWPE69MX3M169854



**TIRE AND LOADING INFORMATION**

SEATING CAPACITY	TOTAL	88	FRONT	8	REAR	88
------------------	-------	----	-------	---	------	----

The combined weight of occupants and cargo should never exceed **XXX kg or XXX lbs.**

TIRE	ORIGINAL SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	P235/60R17XL	200 kPa, 29 PSI	
REAR	P235/60R17XL	200 kPa, 29 PSI	
SPARE	P235/60R17XL	200 kPa, 29 PSI	

3VWPE69MX3M169854



## APPENDIX C: FAQ'S & TROUBLESHOOTING GUIDE

**The tool is set up correctly for make model and year but the tool does not work on the sensor?**

Answer: hold the tool in the proper position, TPM is actually faulty or vehicle has incorrect TPM installed.

**I have a faulty sensor and the dealership gave me a new one but it will not program to the car.**

Answer: The dealership probably gave the wrong sensor. Many vehicles of the same model might have 2 or 3 possible sensor variations to accommodate high and low pressure ranges, frequency, etc.

**I just rotated the vehicle's wheels. Do I need to re-learn the sensors to the vehicle?**

Answer: Yes. Bartec recommends you ALWAYS do a RELEARN

**The tool won't turn on.**

Answer: Make sure battery is fully charged. Charge tool for 4+ Hours and retry power on.

**The option for "Send Data" does not appear under Send/Store Data**

Answer: The Bluetooth is not enabled under Networks located in menu My Tool

**I send data to TPMS Desktop, but nothing appears in the Audit section.**

Answer: Verify the Date/Time is properly set on the tool (located under My Tool) and on your PC.

**I just updated, what's new with my tool?**

Answer: by reviewing the Software Release Document or navigating on your tool to My Tool – New Features, you can review the updates Bartec has made to your software.

**What is the difference between Test Before You Touch and Relearn?**

Answer: TBYT is used to diagnosis the vehicle and will not reset the system Relearn is used to reset the system.

**What is "Profile" for under Settings?**

Answer: to configure the user controlled settings for sensor types, etc. See section on tool set-up for more information.

**How do I know if the sensor battery is low?**

Answer: in some cases you won't know since the battery might even be too low to transmit. If the sensor spec allows, when the sensor get low, it will transmit a status and the Bartec tool will show this with a Low Battery Icon. See section on Screen Icons.

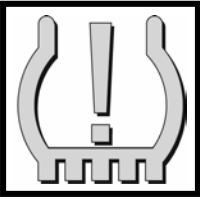
**I installed a sensor and I can't read it now.**

Answer: did you use a programmable sensor? If so, you may have forgotten to program it. There are programmable sensors that must be programmed prior to reading.

**Who do I call for help?**

Answer: Bartec USA provides world class technical support that can be reached M-F at (866) 407-8767. For more information, see you section of the user guide on Technical Support.

**APPENDIX D: TPMS SYSTEM REVIEW**



When diagnosing TPMS systems, understanding what the tell-tale light means is important.

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

Other important TPMS facts:

**COMMON MECHANICAL ISSUES:**

- ✓ Corrosion due to incorrect component replacement.
- ✓ Corrosion from operation without dust cap.
- ✓ Stem breakage due to use of "long neck" air chucks.
- ✓ Damage from driving with a flat tire.
- ✓ Flat or dead Battery.



**THREE SENSOR TYPES:**

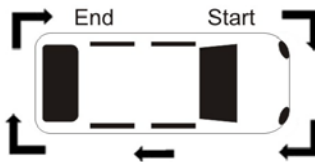
- **Clamp in** – has a nut, valve core and service pack – needs to be serviced each time the tire is changed, or when the sensor is damaged.
- **Snap in** – mounts like a traditional rubber valve stem, has a valve core – need to be aware of this style of TPMS Sensors when servicing tires to prevent damage. Valve stem can be replaced.
- **Banded** – Primarily of Ford vehicles, located directly opposite the rubber valve stem. Band and cradle often require service or replacement.



**RELEARN TYPES:**

After TPMS Sensor replacement or TPMS BCM replacement, sensor ID's MUST be programmed to the BCM. Each TPMS Sensor has a unique serial number which must be registered to vehicle for proper system function.

**Stationary** – This method requires that you get the vehicle into LEARN MODE. Reference the relearn procedure that is on the tool for the vehicle being worked on. Once in LEARN MODE, use the **OTC 3934** tool to **ACTIVATE** each of the TPMS sensors. The vehicle typically responds to the sensor activation with a horn honk. Follow the instructions on the OTC3934 to complete a stationary re-learn.



**NOT ALL VEHICLES HAVE STATIONARY RE-LEARN; consult the OTC 3934 for relearn method.**

**OBD** – This method is simpler. Get sensor ID's using the 3934 Tool. Activate and decode each sensor. Connect the 3934 to the OBD II port. Write ID's to the control module by following instructions on the screen.

**Auto Learn** – Some vehicles learn new sensor ID's by simply driving. After tire rotation or new sensor install, drive the car until the TPMS light turns off.

**TEST BEFORE YOU TOUCH:**

- ✓ Check for the TPMS Indicator
  - **Flashing Light = System Fault**
  - **Solid Light = Low Pressure**
- ✓ Always adjust pressure to placard
- ✓ Always begin testing at LEFT FRONT
- ✓ Always work CLOCKWISE around the vehicle

Placard Pressure	25	30	35	40	45	50	55
TPMS Light on @	18.8	22.5	26.3	30.0	33.8	37.5	41.3

## **APPENDIX E: COMS ERROR TROUBLESHOOTING**

If you are having a problem or error during the COMS process, follow these steps before calling customer support.

### **Check vehicle ignition**

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

### **Check cable to tool connection**

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

### **Check cable connection at vehicle**

Make sure OBDII connection is good.

### **Verify Make, Model, and Year**

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

## LIMITED WARRANTY

Bartec products are guaranteed for a period of 1 year from the original date of purchase (either from the factory or authorized dealer). In order for your warranty to become active, you must register your tool with Bartec USA by mailing in the warranty card or registering on our website. We warrant that the tool will be free from defects in material and workmanship, when properly used. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL CONSUMER PURCHASER OF THIS PRODUCT. In the event of a defect, Bartec USA LLC will, at its discretion, repair or replace the tool with a product of like kind or quality, which may be new or reconditioned. The repaired or replaced product will be warranted for 90 days from the date of return shipment, or for the balance of the original warranty, whichever is longer. Claims of all defects must be submitted within 30 days of occurrence, and verified by an authorized Bartec representative.

To obtain service for your Bartec tool the purchaser must obtain a Return Materials Authorization (RMA) number from Bartec USA customer service prior to shipping. Bartec shall not be liable for any expense incurred by purchaser in order to remedy a defect without prior authorization. To obtain your RMA number, you will need to provide at a minimum the follow: 1) Model and Serial Number, 2) Supplier from which the tool was purchased 3) Date of purchase, 4) Description of problem, how and when it occurred. Please note that Bartec USA may attempt to have you try some things in the field prior to issuing a RMA number to determine if the tool does need to come back. The purchaser must return the product postpaid with a copy of the original sales receipt, purchaser's return address and the RMA number clearly printed on the outside of the package to:

**NOTE: IN ORDER TO COMPLETELY DIAGNOSE THE ISSUE ENTIRE KIT MUST BE RETURNED**

44231 Phoenix Drive  
Sterling Heights, MI 48314  
ATTN: Returns RMA# \_\_\_\_\_

Bartec USA may refuse your delivery if the RMA number is not clearly marked on the outside of the box. Bartec USA reserves the right to refuse to provide service free-of-charge if the sales receipt is not provided or if the information contained in it is incomplete or illegible or if the serial number is altered or removed. Bartec USA is not reasonable for any losses or damage to the product incurred while the product is in transit or is being shipped for repair. Bartec USA recommends shipping UPS and insuring your shipment.

### Limitations and Exclusions

This warranty does not apply to damage or loss by and or all the conditions:

- Freight Damage
- Decals, Overlays or Decorative Items
- Misuse or misapplication or failure to follow the directions, or failure to follow cautions or warnings on product, operation, service guides, etc.
- Minor stress cracks in surfaces that are considered cosmetic and have no effect on tool function or performance or safe use.
- Any damage related to fire, accident, misuse, acts of war, disaster, terrorism, or God.

It is expressly agreed that the liability of Bartec limited WARRANTY IS EXCLUSIVE. BARTEC DISCLAIMS ANY AND ALL OTHER WARRANTIES.

Bartec USA, LLC does its very best to insure the accuracy of the information contained in work instructions, but cannot be responsible for errors or omissions by third party sources.

This warranty is exclusive to the original purchaser of the tool and is not transferable.

### Exclusions:

The following items are excluded from the warranty coverage:

- periodic maintenance and repair or replacement of parts due to normal wear and tear
- batteries (except internal)
- finishes
- service performed or attempted by anyone other than an authorized Bartec service technician

*Opening, dismantling or repairing of this product by anyone other than an authorized Bartec technician will void this warranty.*

### Limitation of Liability

Under no circumstances shall Bartec be liable for any special, consequential or incidental damage arising from any defect in products manufactured or sold by Bartec outside of the responsibilities expressed by this warranty. No person, distributor or representative of Bartec is authorized to make any representations on behalf of Bartec beyond those expressly stated in the applicable literature. Bartec reserves the right to make design and other changes, modifications, or improvements without any obligation to install the same on previously sold or delivered products.

It is expressly agreed that the liability of Bartec is limited, and we do not function as an insurer. The remedies set forth in this warranty shall continue the exclusive remedies available to the purchaser or user and are in lieu of all other remedies expressed or implied. The liability of Bartec, whether in contract, or in tort, under any warranty or otherwise, shall not exceed the selling price by Bartec or the manufacture of the particular product made, sold, or supplied by Bartec.

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**TOOL REGISTRATION FORM (By Fax or Mail)**

*Only complete and send this form if you do not have access to register your tool on-line and wish to receive your updates on SD card.*

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Phone#: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Fax #: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Date of Purchase: \_\_\_\_/\_\_\_\_/\_\_\_\_

Supplier Purchased From: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Model: \_\_\_\_\_

Email Address: \_\_\_\_\_

User name: \_\_\_\_\_

Password: \_\_\_\_\_

I will like to participate in the SD card program understanding I will only get 2 cards per year \_\_\_\_\_

Detach and mail to:  
**Bartec USA**  
**44231 Phoenix Drive**  
**Sterling Heights, MI 48314**

Or fax to:  
**586-323-3801**

