USER GUIDE

TIRE PRESSURE SENSOR
SYSTEM TOOL

(Photo non contractual)

Rev A - CN1-00-8

92-1531

REVISION OF THE TPMS TOOL 92-1531

Due to continuing improvements, the information contained in this user manual, the features and design of this device are subject to be changed without prior notice.

Edition/ Revision	**Reference**	**Date** (week/year)	**Chapters updated**
First edition	92-1531- Rev A	12/2012	Software version CN1-00-8.

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User guide
TPMS TOOL

1. SPECIFICATIONS

Battery Type:	Rechargeable Lithium Ion
Battery Life:	Approximately 1,000 activations per full charge.
Dimensions (Max. L,W,D):	8.5" x 4" x 2" (21.6 cm x 10.2 cm x 5.1 cm).
Case Material:	High Impact ABS.
Response Frequency:	Main frequencies: 315 MHz and 433.92 MHz (supporting most specific frequencies).
Low Battery Indication:	LCD bar graph display.
Weight:	Approx. 2 lbs.
Temperature:	Operating: -4° F to 131° F (-20° C to +55° C). Storage: -40°F to 140° F (-40° C to +60° C).
Operating Altitude:	Up to 6560 ft (2000 m).

2. IMPORTANT SAFETY INSTRUCTIONS

Do not discard. Retain for future reference.

This device complies with Part 15 of the FCC Rules

Operation is subject to the following two conditions:

(1) This device will not cause harmful interference, and

(2) This device will accept any interference received, including interference that may cause undesired or improper operation.

WARNING: This product emits electromagnetic and electronically generated waves that may interfere with the safe operation of **pacemakers**.

Individuals that have pacemakers should never use this product.

WARNING:

Do not use on live electrical circuits.

Must read instructions before use.

Wear safety goggles. (User and bystanders).

Risk of entanglement.

3. CAUTION

READ THESE INSTRUCTIONS BEFORE USING

Your Tire Pressure Monitoring (TPM) tool has been designed to be durable, safe, and reliable when properly used.

All **TPMS TOOLS** are intended to be used only by qualified and trained automotive technicians or in a light industrial repair shop environment. Please read all instructions below before using. Always follow these safety instructions. If you have any questions pertaining to the safe or reliability use of this tool, please call your local dealer.

1. Read All Instructions

All warnings on the tool and in this manual should be adhered to. All operating instructions should be followed.

2. Retain Instructions

The safety and operating instructions should be retained for future reference.

3. Heed Warnings

User and bystanders must wear safety goggles and must read instructions before use. Do not use on live electrical circuits, risk of entanglement.

4. Cleaning

Clean with a soft dry cloth, or if necessary, a soft damp cloth. Do not use any harsh chemical solvents such as acetone, thinner, brake cleaner, alcohol, etc as this may damage the plastic surface.

5. Water & Moisture

Do not use this tool where contact or immersion in water is a possibility. Never spill liquid of any kind onto the tool.

6. Storage

Do not use or store the tool in an area where it is exposed to direct sunlight or excessive moisture.

7. Use

To reduce the risk of fire, do not operate the tool in the vicinity of open containers or flammable liquids. Do not use if the potential for explosive gas or vapors exists. Keep the tool away from heat generating sources. Do not operate the tool with the battery cover removed.

4. FUNCTION KEYS

POWER	Power ON /OFF switch	TEST	Test or trigger sensor.
▲	Navigate to select "**up**".	↵	Next, continue or confirm.
▼	Navigate to select "**down**".	C	Cancel, previous step.

5. POWER ON

Press POWER key to turn on device, the **TPMS TOOL** displays the software version as in **Fig.1**, and then reverts to the **MAIN MENU** as in **Fig. 2**, if the OBD2 module is plugged into the tool, the message as in **Fig. 3** will be displayed:

TPMS TOOL Version CN1-00-8	MAIN MENU > VEHICLE SELECTION SETTINGS LANGUAGE	OBD2 MODULE DETECTED
Fig. 1	**Fig. 2**	**Fig. 3**

6. OPERATING INSTRUCTIONS

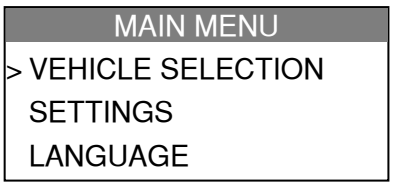
6.1. TPMS TOOL OVERVIEW

Read and diagnose sensors, **OBD2 ECU** reset and transfer data to **ECU**.

***Note**: With most vehicles, if the vehicle is in "learn mode" the vehicle will also confirm that the TPM sensor has communicated to the ECM with a series of horn beeps.*

Service Procedure

Section 1.0: Read Sensor Test



Before servicing the tires/wheels, using your **TPMS TOOL**, trigger each of the vehicle's sensors to make sure they are working properly.

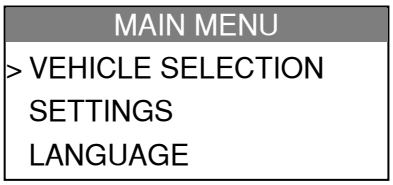
This will eliminate the liability associated with replacing previously damaged or defective sensors. This procedure will not change the vehicle settings because the vehicle has yet to be put into learn/retraining mode. This procedure allows you to quickly identify damaged or defective sensors, because some vehicles do not report a damaged or defective sensor condition on the instrument cluster for up to 20 minutes.

***Note**: If the sensors do not trigger, please refer to the Troubleshooting section of this Guide.*

Perform tire/wheel service.

For vehicles that require retraining, please see to Section 2.0

Section 2.0: Learning TPM System



With the vehicle in learn mode, begin by triggering the driver's front left (LF) wheel sensor. Many vehicles will provide an audible chirp confirming that the sensor ID has been learned by the vehicle on board computer. The communication between the sensor and the on board computer is also confirmed on LCD display of **TPMS TOOL**.

The same procedure should be followed on all wheel sensors, in a clockwise rotation, until all the vehicle sensors have been retrained.

After triggering the driver's rear wheel sensor, some vehicles will chirp twice indicating that the TPM system has been retrained.

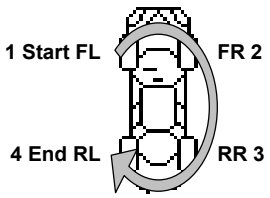
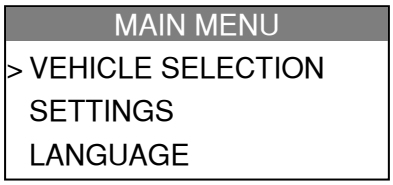


Fig. 4

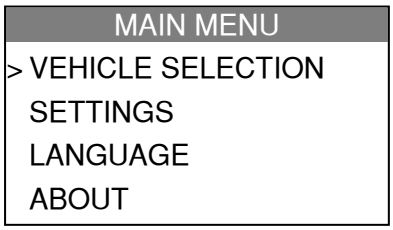
For vehicles that do not require retraining, we recommend you trigger each wheel sensor, one final time, to make sure they are working correctly prior to releasing the vehicle to the customer.

7. VEHICLE SELECTION

Use up and down keys of and in order to scroll up and down in the menu.

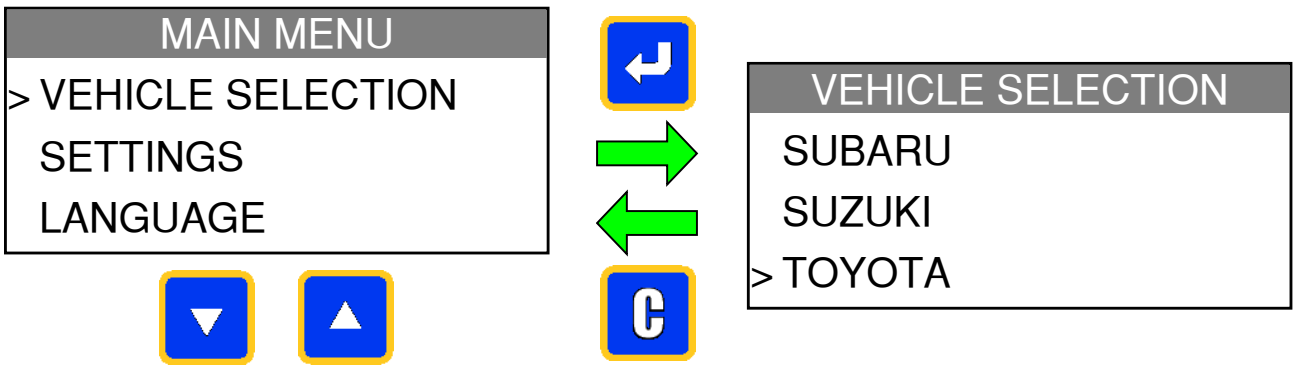


Initial screen display.

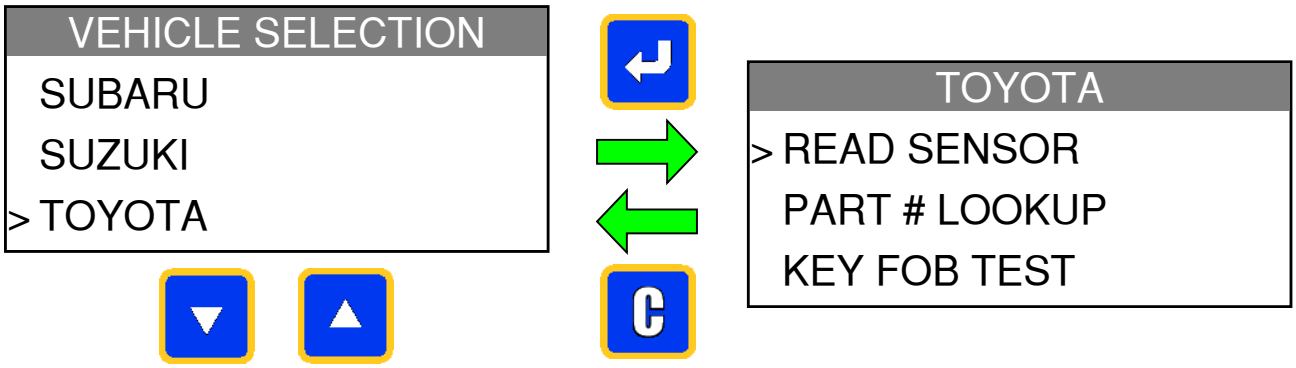


Complete selection list.

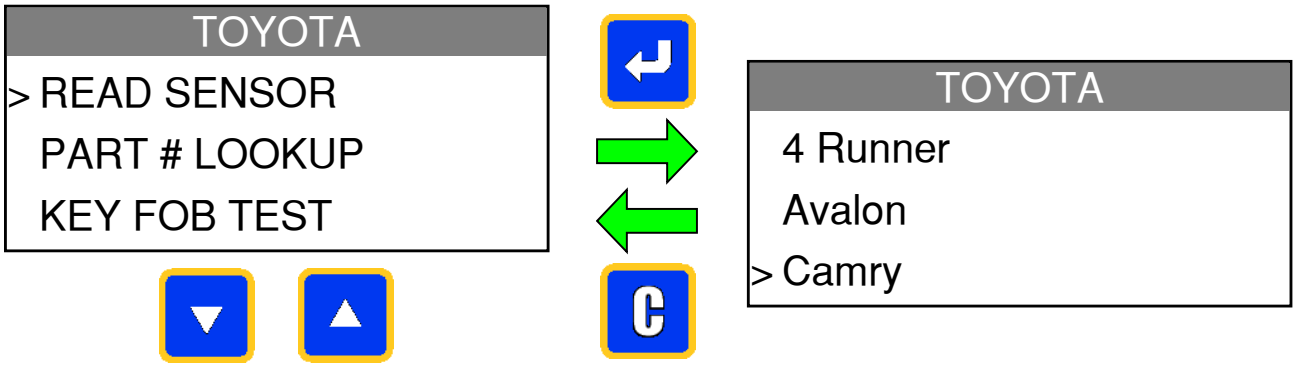
7.1. READ SENSOR TEST



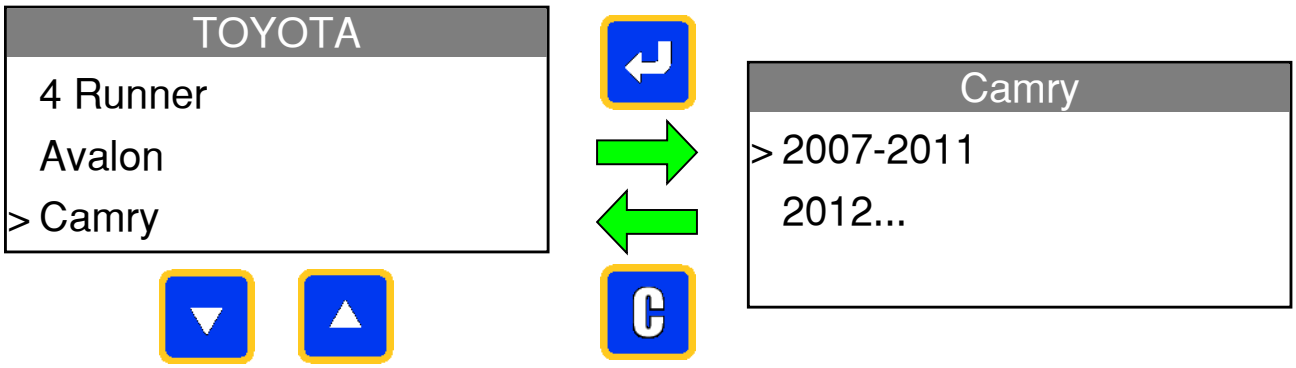
7.1.1. Select Car Manufacturer



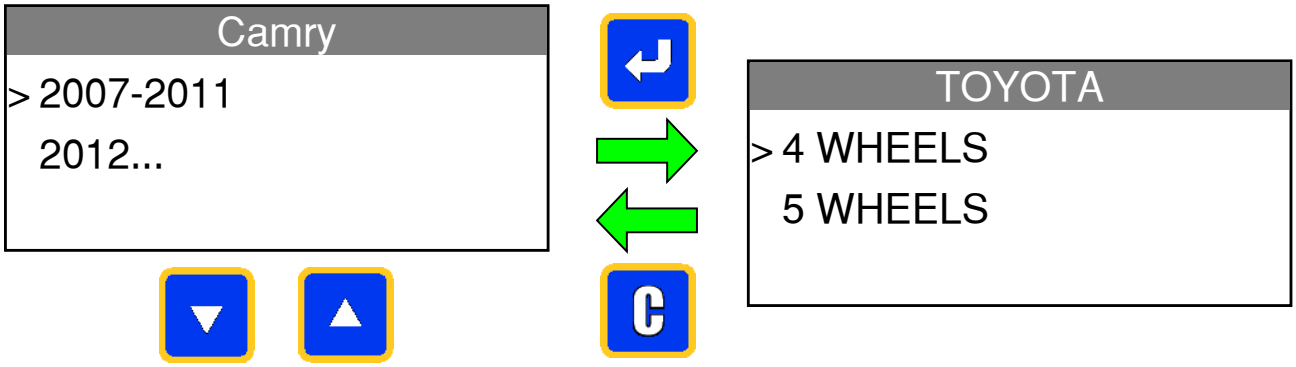
7.1.2. Select test type



7.1.3. Select vehicle model

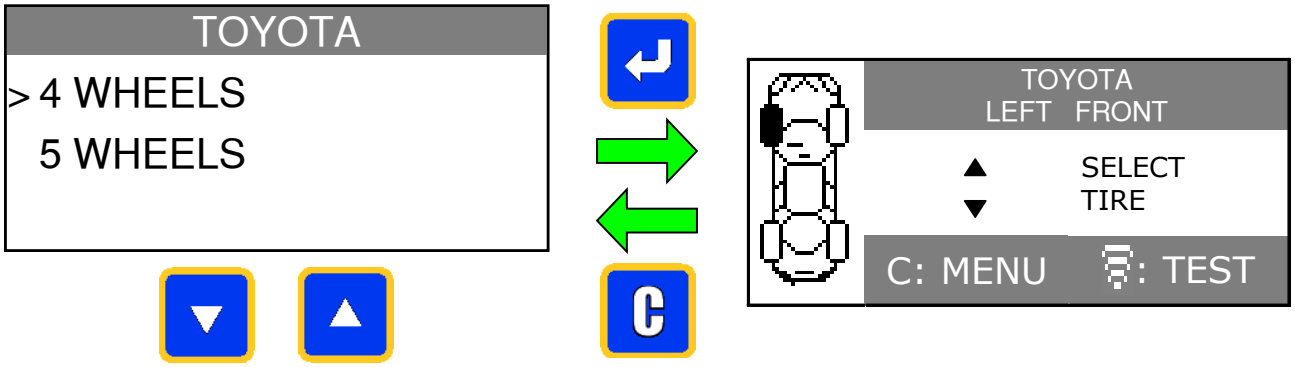


7.1.4. Select year



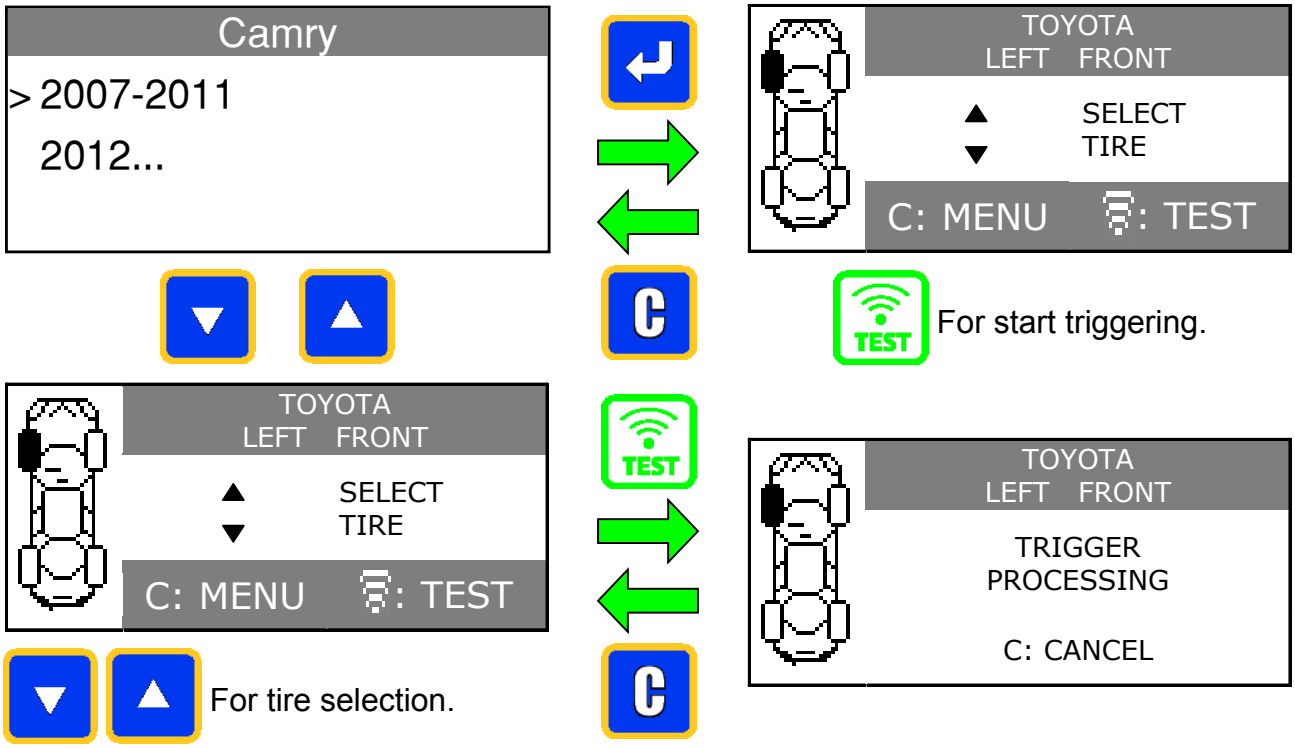
7.1.5. Select wheel number

This option does not appear for all vehicles.

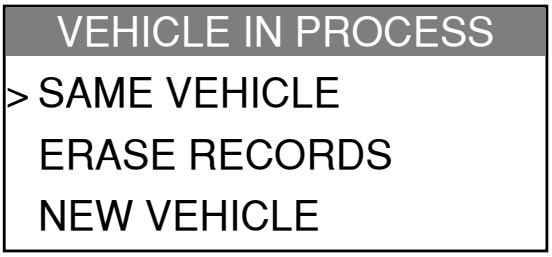


The tool is ready to trigger the sensors.

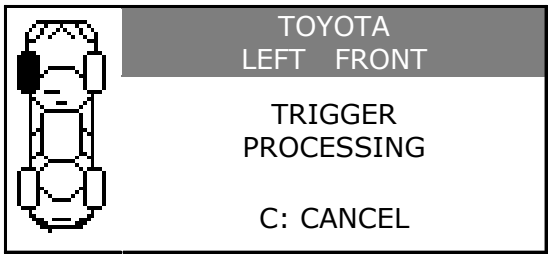
7.1.6. Test sensor



If pressing C key, the following screen appears and select option.



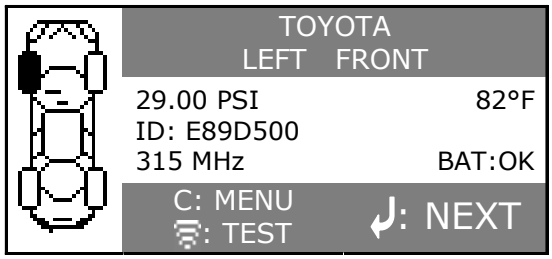
7.1.7. Test results



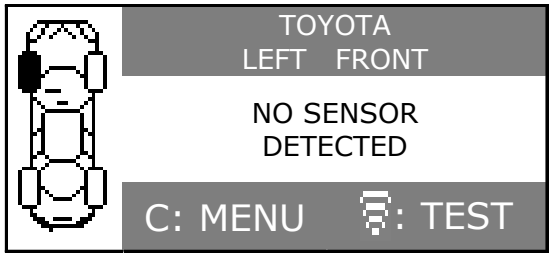
1: PASS: press to go to next tire.

2/3: FAIL: press to test again.

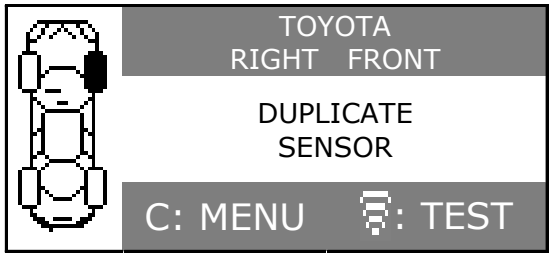
1: PASS



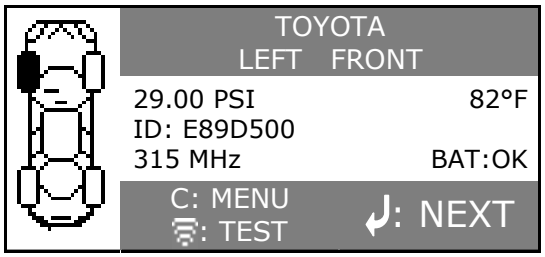
2: FAIL



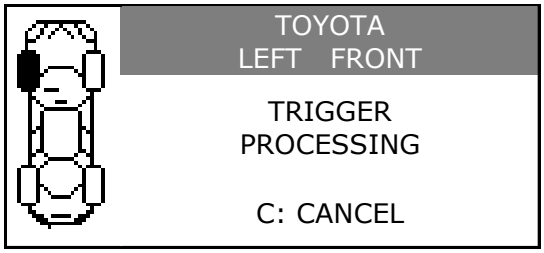
3: FAIL

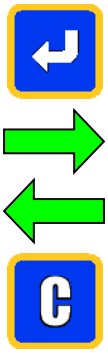


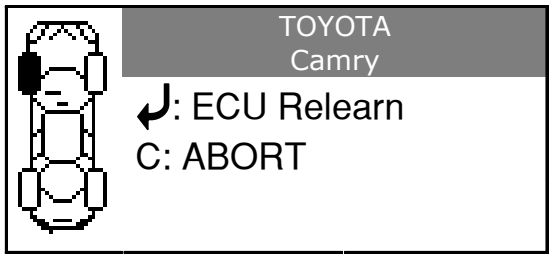
7.1.8. Reprogram ECU through OBD2 Port



Test again



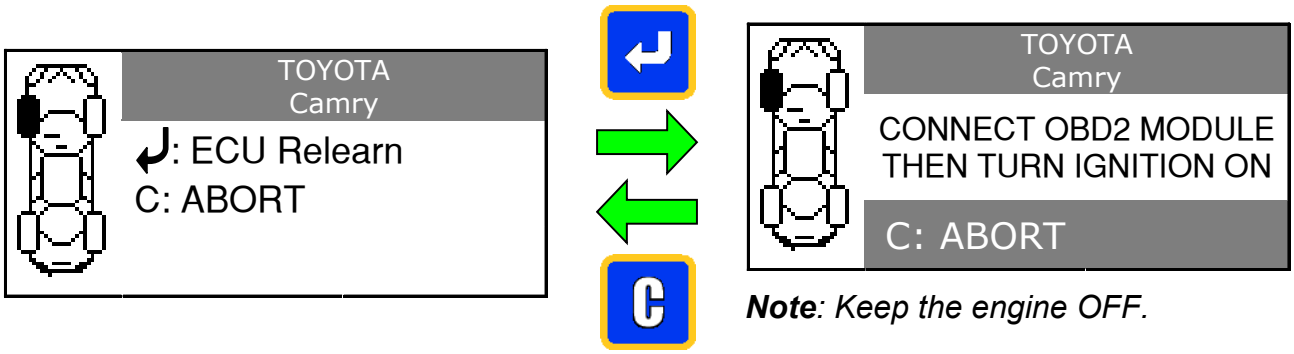




***Note**: this screen message is displayed when all the sensors are triggered and the **OBD2** module is connected to the **TPMS TOOL**.*

***Note**: this feature is not supported on all vehicles.*

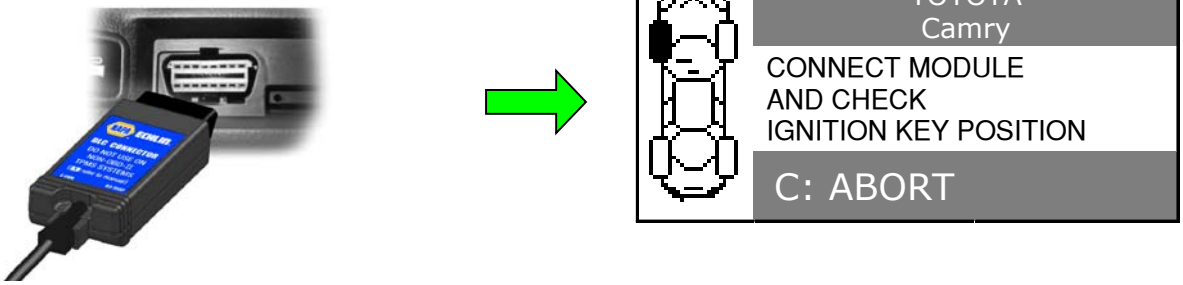
7.1.9. OBDII module to OBDII port



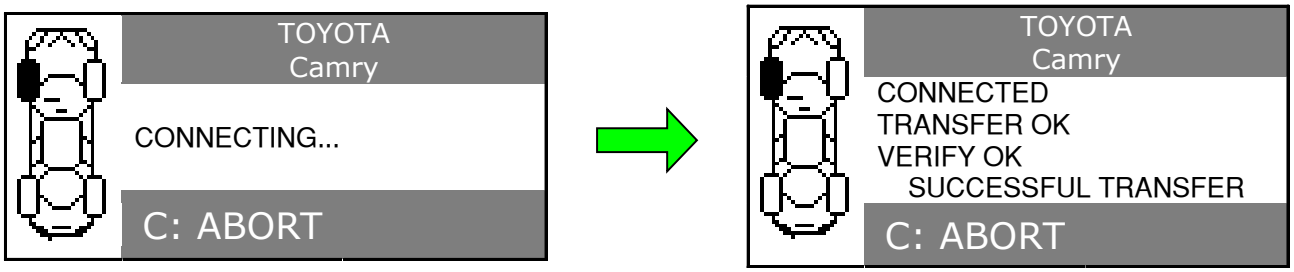
***Note**: Keep the engine OFF.*

7.1.10. Connection

Plug **OBD2** module to the **OBD2** port on vehicle.



7.1.11. Data transmit

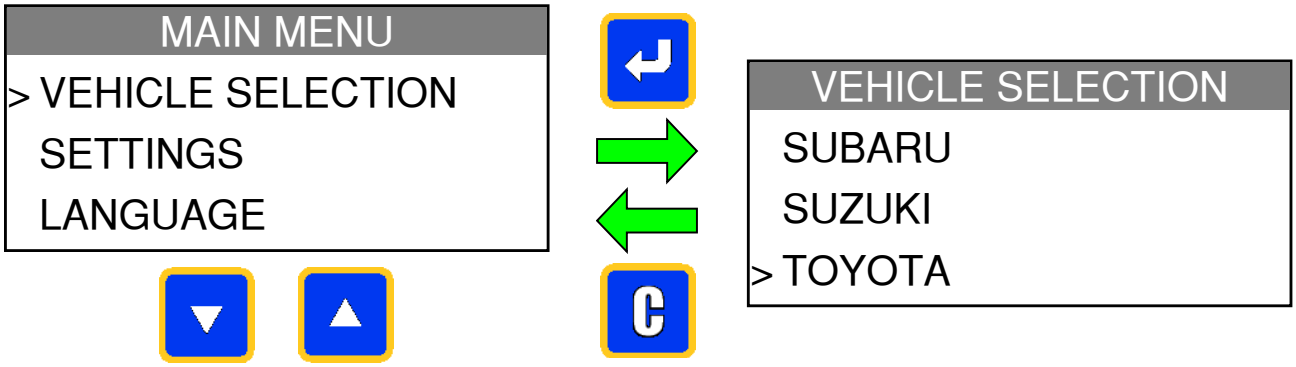


OBD2 module can be unplugged from the **ECU**.

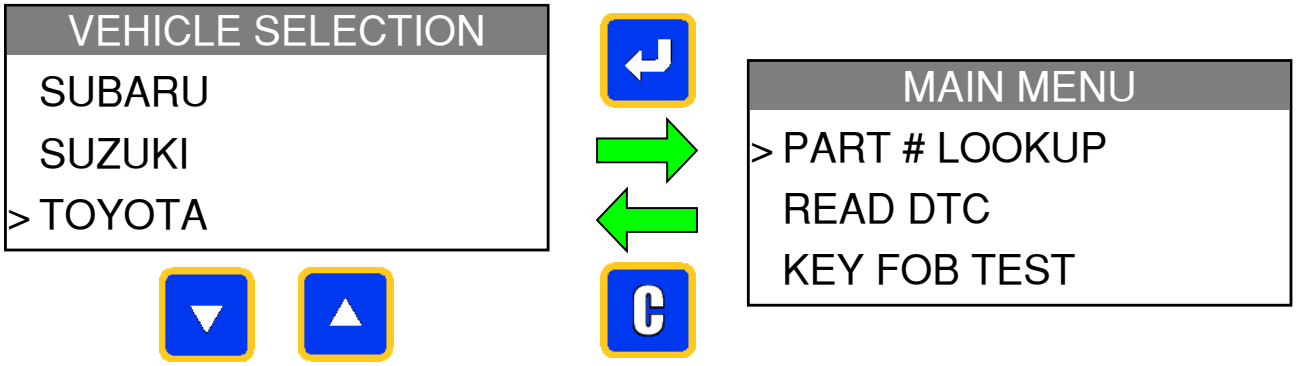
7.2. PART # LOOKUP

This is a spare parts data base for all the sensors available for all cars.

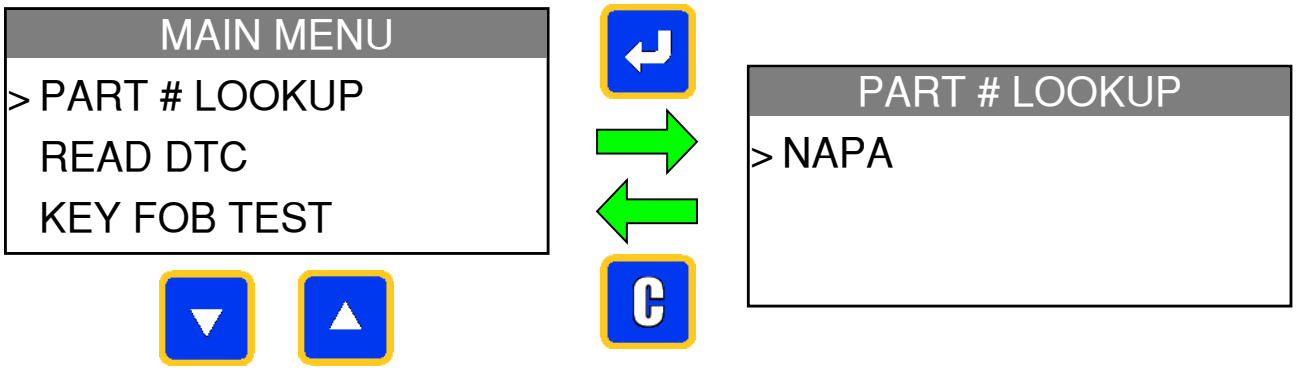
7.2.1. Select Car Manufacturer



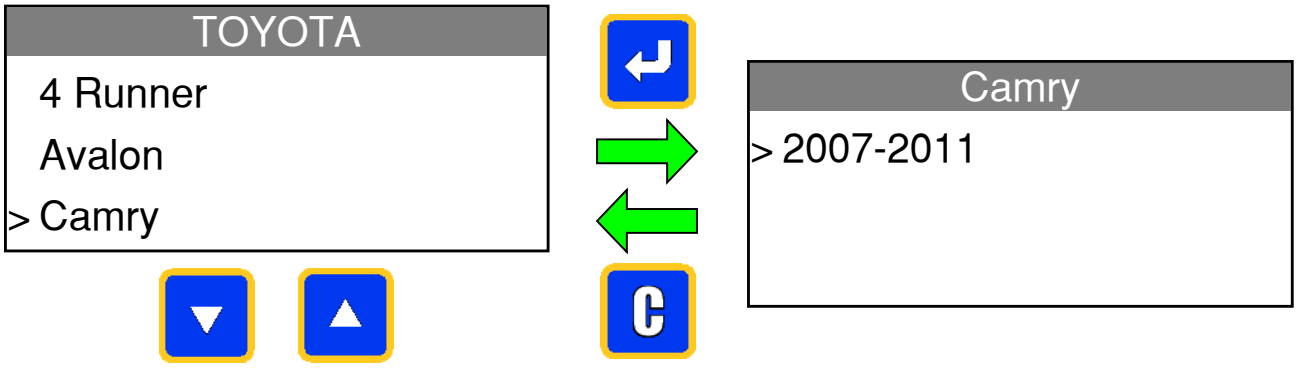
7.2.2. Select part # lookup menu



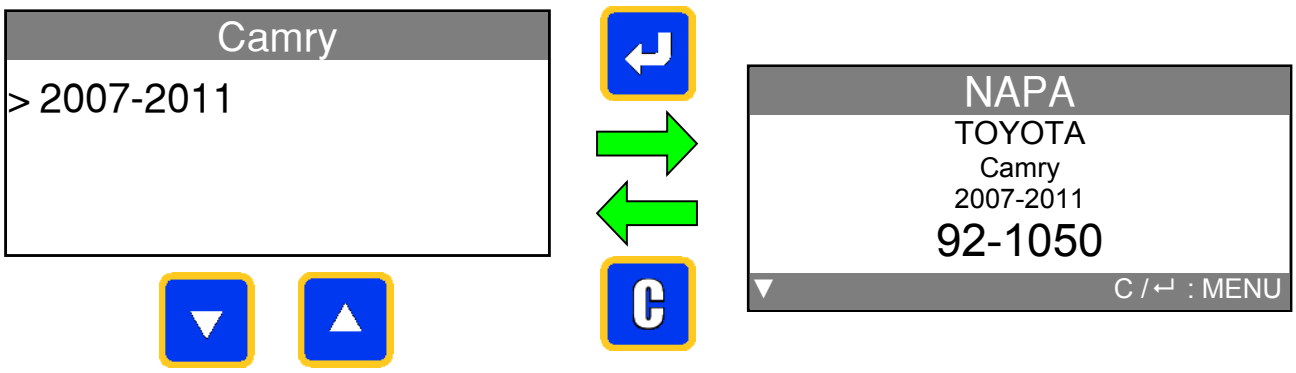
7.2.3. Select dealer



7.2.4. Select vehicle model



7.2.5. Select year

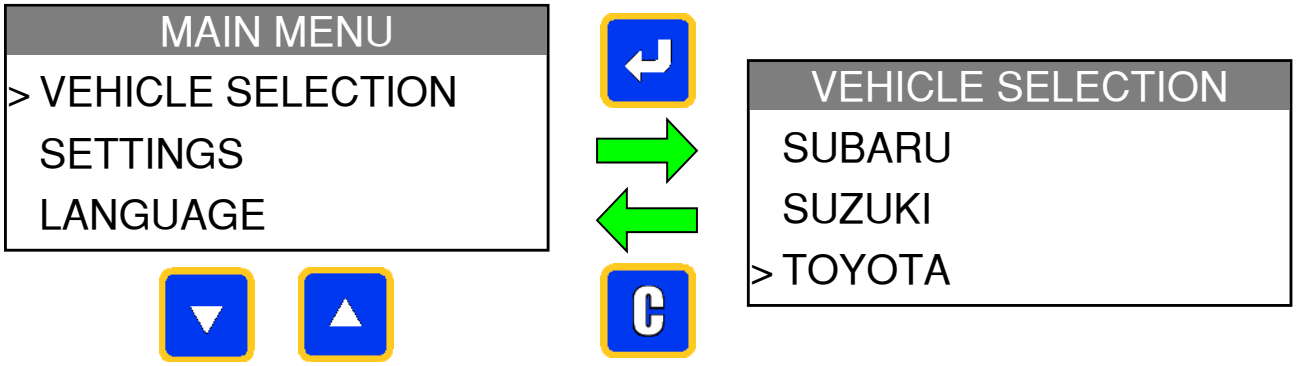


7.3. READ DTC

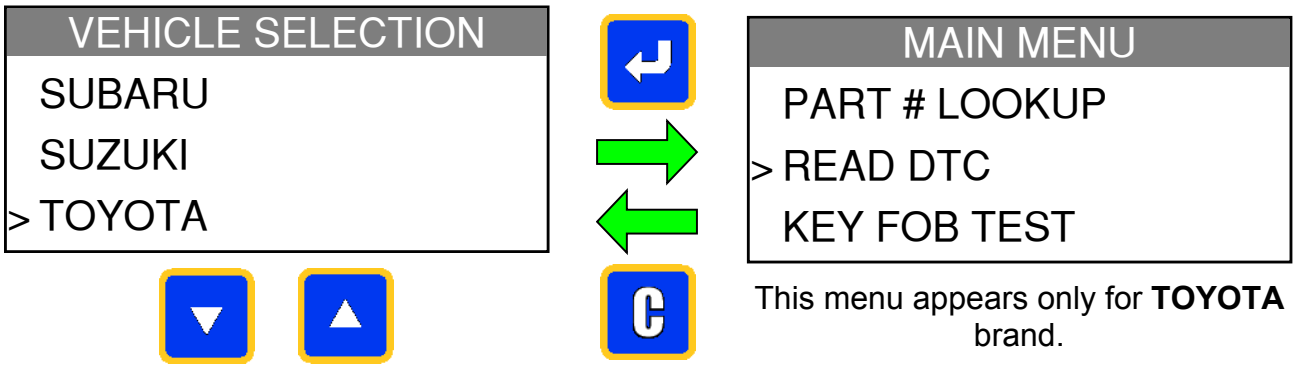
DTC = Diagnostic Trouble codes.

This is for reading only the TPM codes. This menu is currently available for: Acura, Honda, Hyundai, Infiniti, Kia, Lexus, Mitsubishi, Nissan, Subaru and Toyota.

7.3.1. Select Car Manufacturer

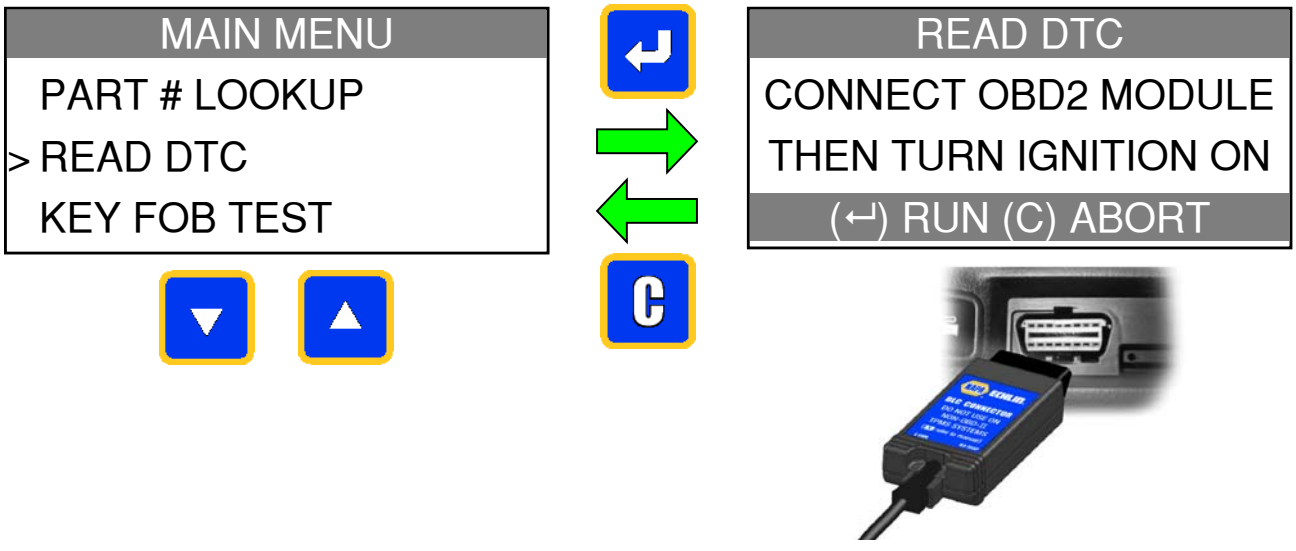


7.3.2. Select READ DTC menu



This menu appears only for **TOYOTA** brand.

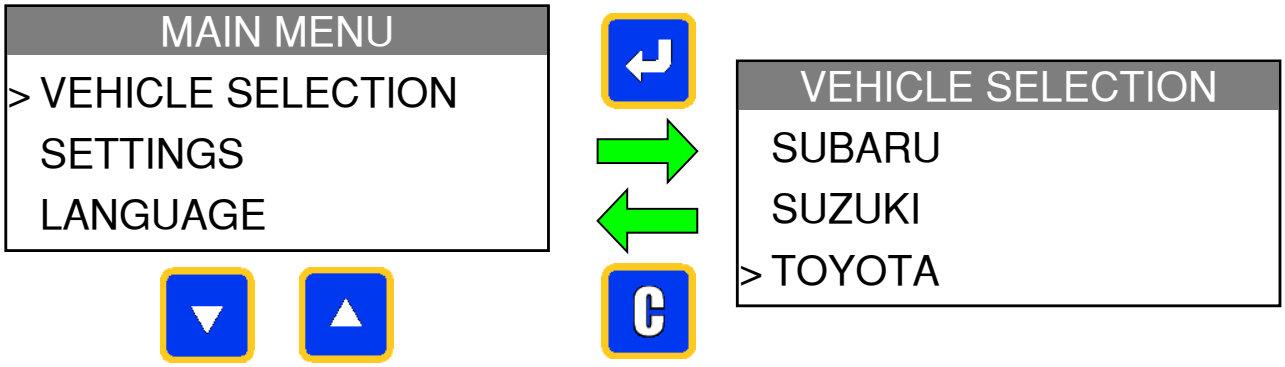
7.3.3. Read the DTC



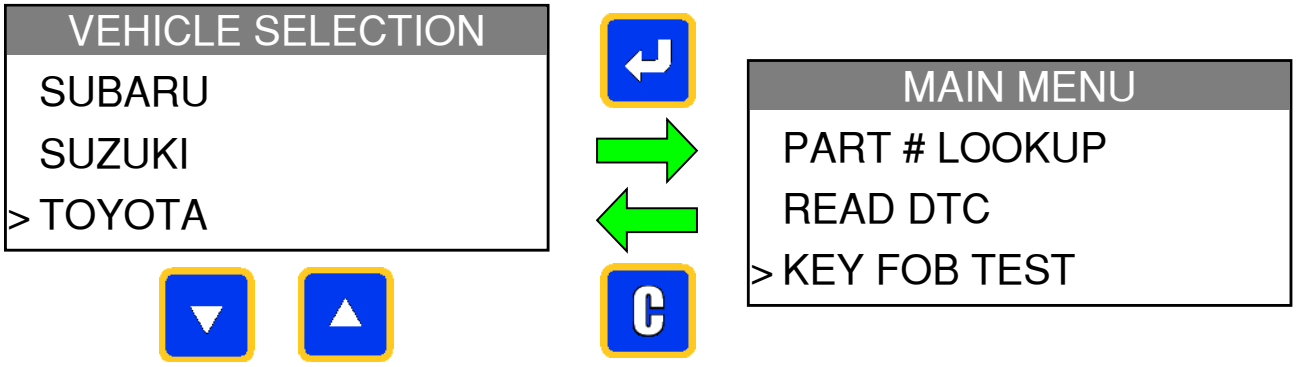
Once plugged in, the DTC are displayed.

7.4. KEY FOB TEST

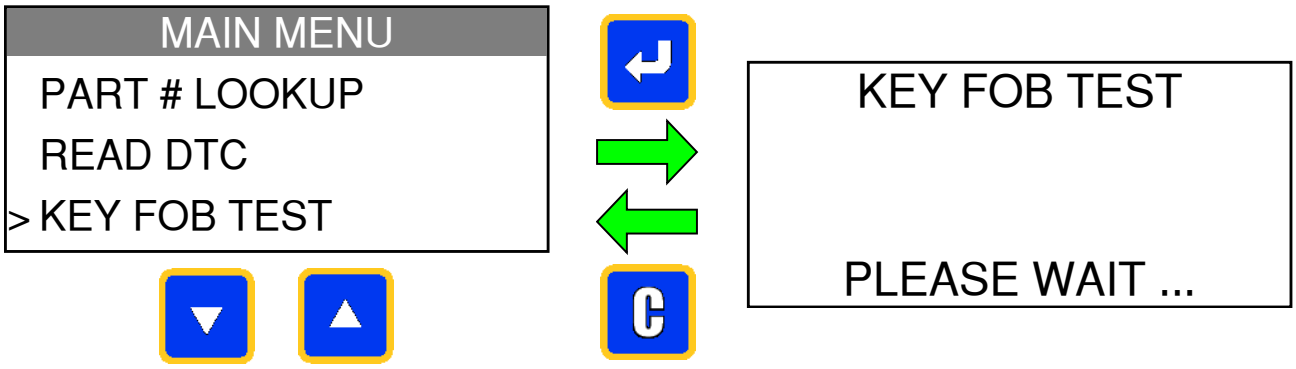
7.4.1. Select Car Manufacturer



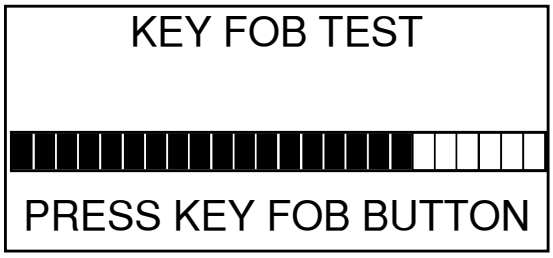
7.4.2. Select test type



7.4.3. Start test



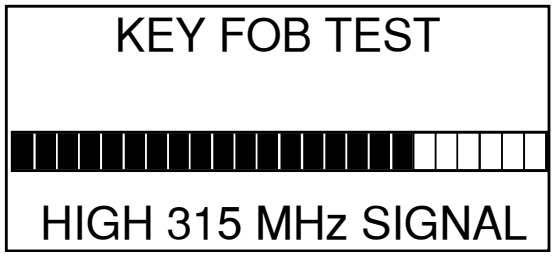
7.4.4. Test results



Press TEST to test again.

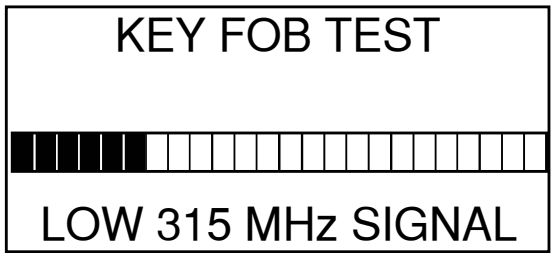
Press C to exit.

1: PASS



PASS: KEY FOB is working within its range to the device.

2: FAIL

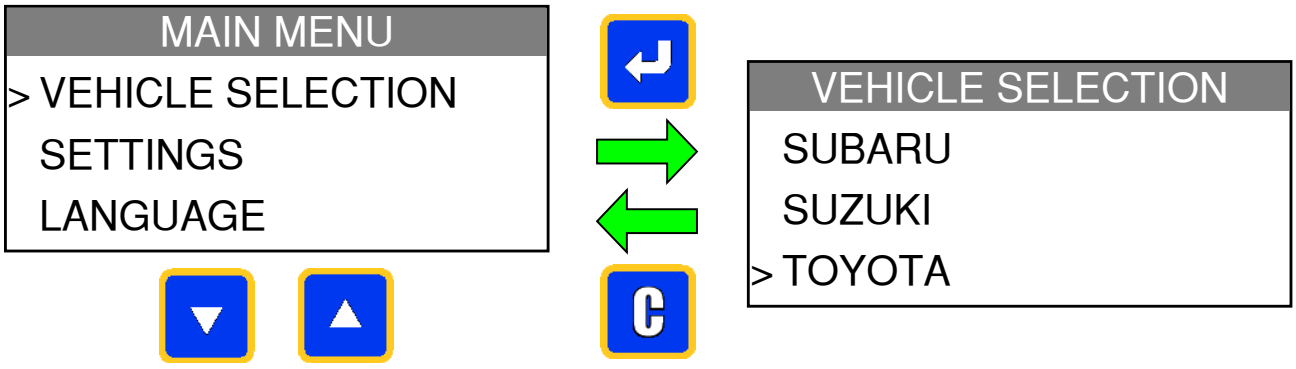


FAIL: Low signal strength, this indicates low battery, it is recommended to replace battery.

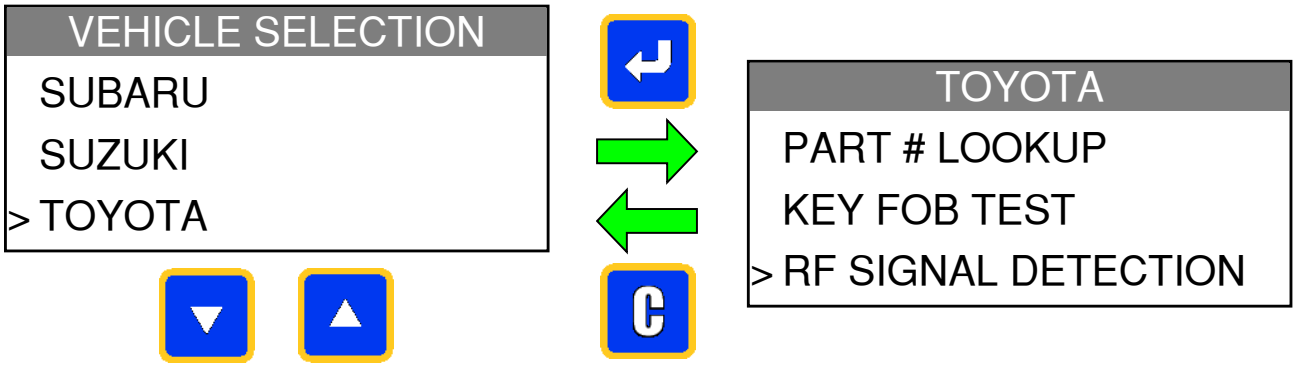
7.5. RF Signal Detection

Background noises and frequency interferences are invisible and are not audible most of the time. It is important to turn off all electronic devices surrounding the work area when resetting the DIRECT TPM System. This unique feature allows users to find the sources of other RF interferences. The **TPMS TOOL** looks for these signals and displays the strength of the interference on the bar graph display.

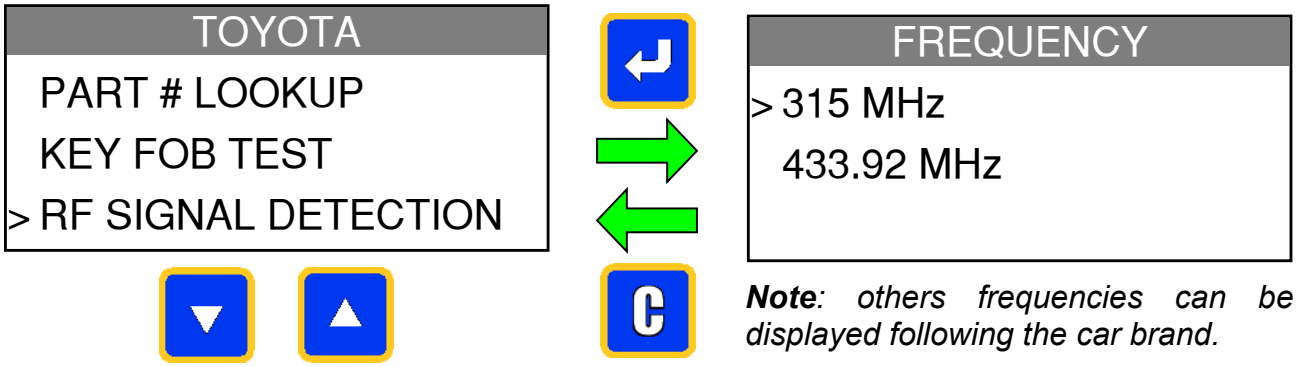
7.5.1. Select Car Manufacturer



7.5.2. Select test type

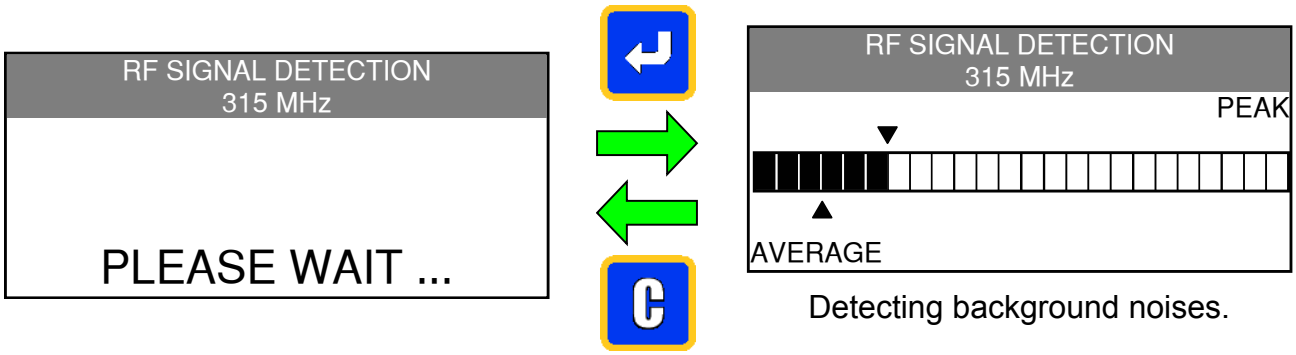


7.5.3. Frequency range selection



***Note**: others frequencies can be displayed following the car brand.*

7.5.4. Test results



Detecting background noises.

7.6. Optional Functionality: TO WORK WITH PROGRAMMABLE SENSORS

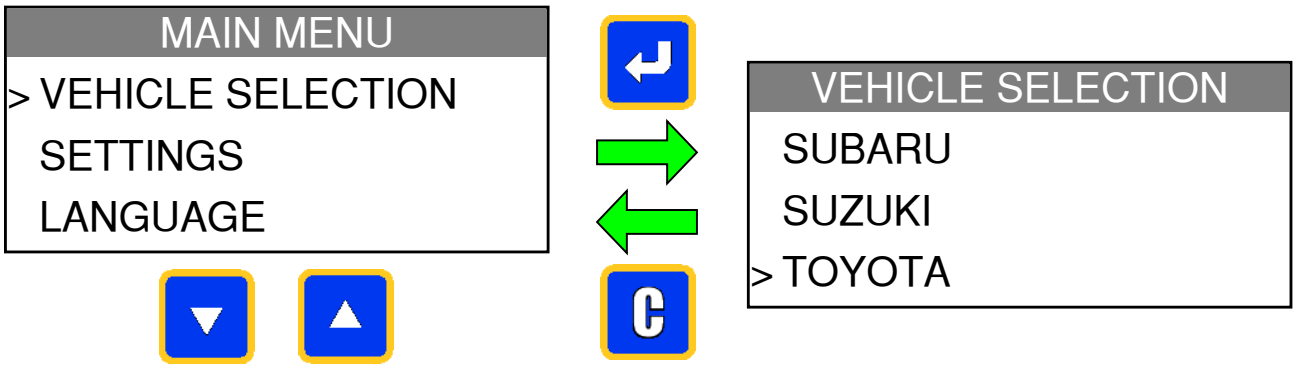
Please consult with sensor provider for more details.

7.7. Unlock ECU

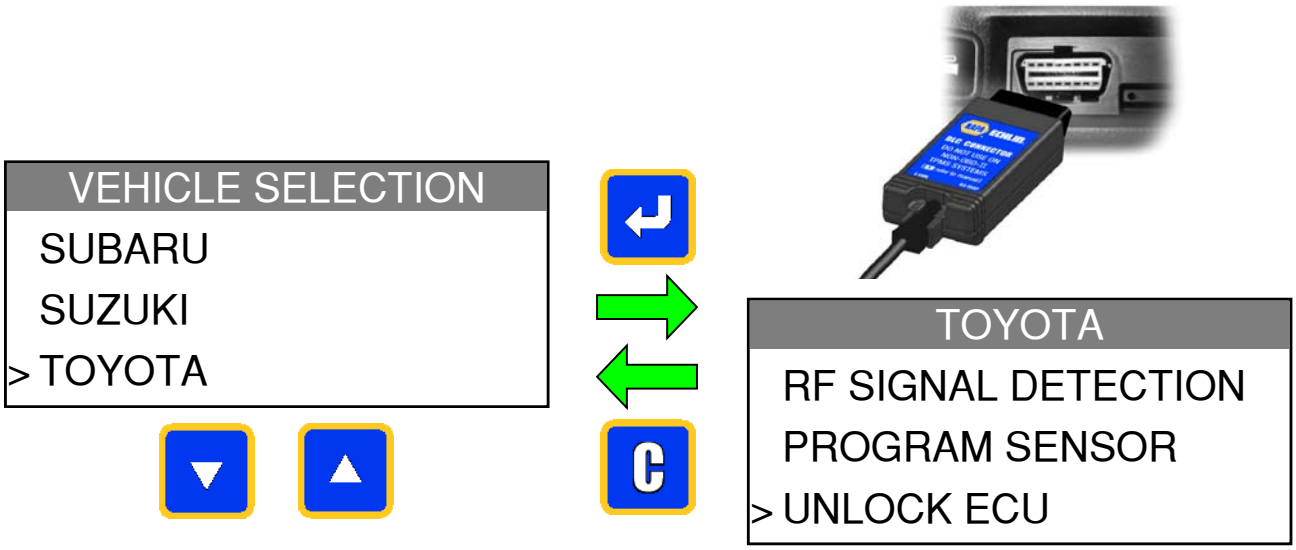
This is a hardware ECU reset to do when the ECU enter in an infinite loop (that can arrive in some cases). This is concerning only: Lexus, Scion and Toyota brands.

ECU = Engine Control Unit.

7.7.1. Select Car Manufacturer

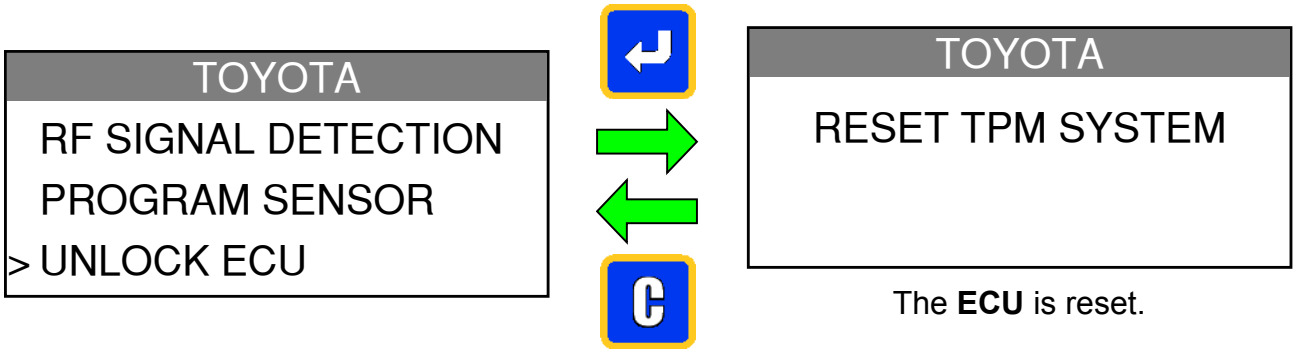


7.7.2. Select Unlock ECU menu



Apply **OBD2** module to the **OBD2** port on vehicle and turn ignition ON (engine OFF).

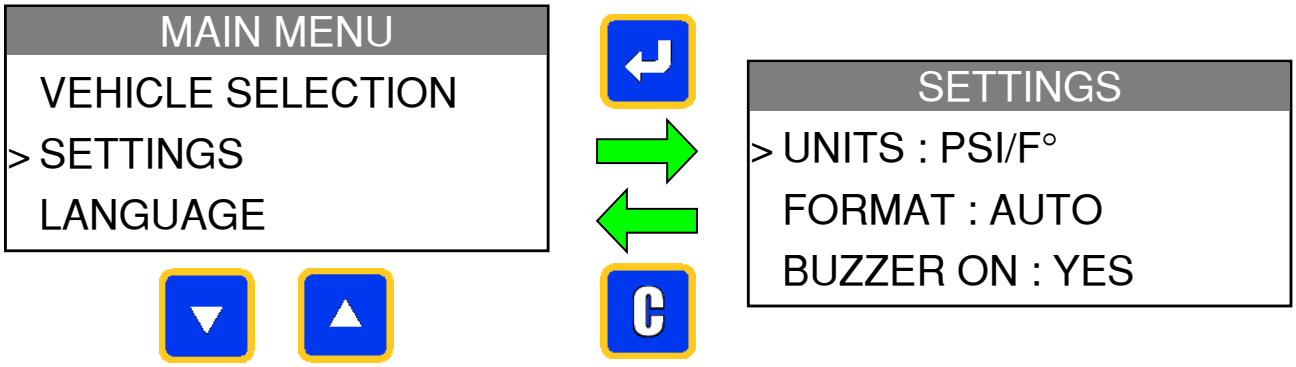
7.7.3. Reset TPM system

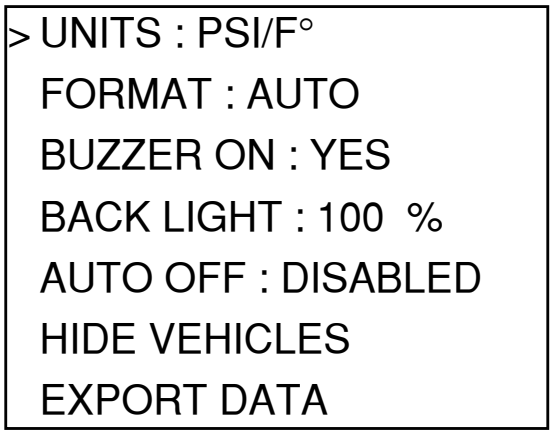


The **ECU** is reset.

8. SETTINGS

8.1. ENTER SETTINGS MENU





Complete listing.

Scroll up and down to select function or settings.

Enter menu or validate settings by enter key.

Key functional descriptions:

UNITS: change the air pressure and temperature display (kPa / PSi and F° /C°).

FORMAT: change the format of sensor ID display.

BUZZER: turn buzzer to ON or OFF. (YES or NO).

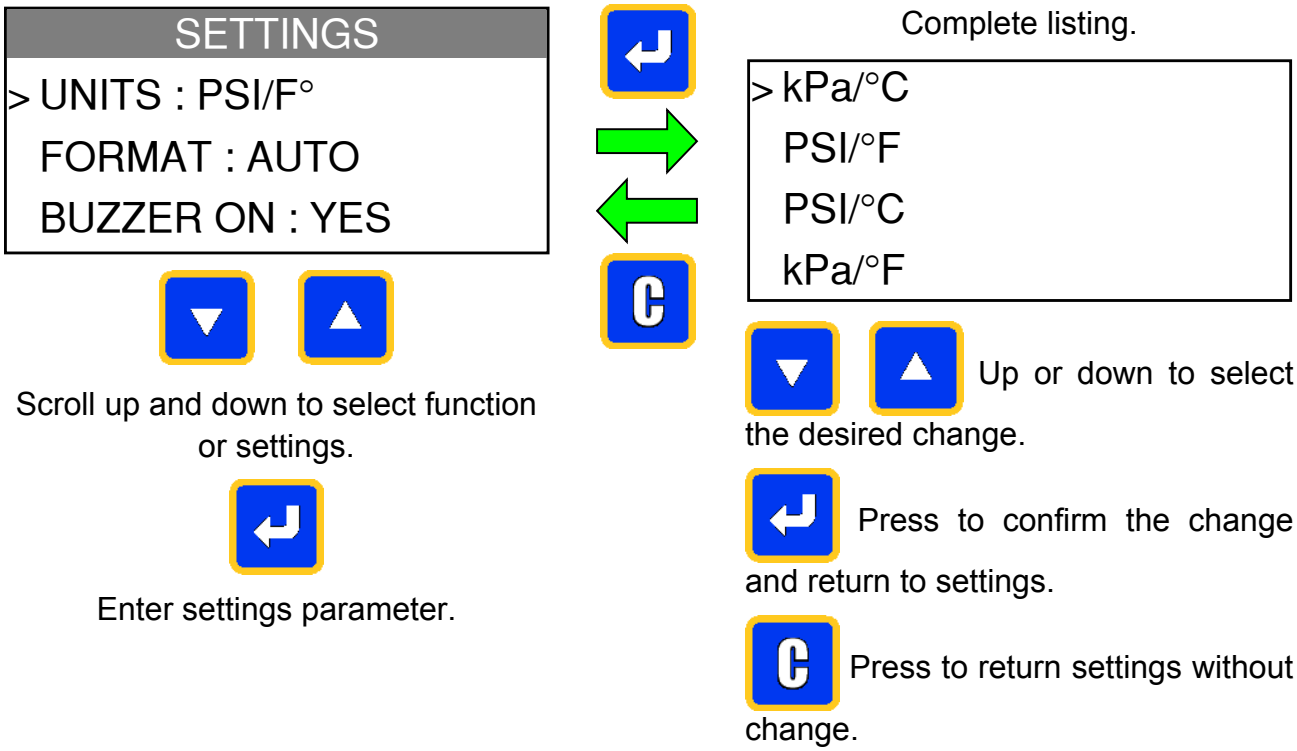
BACK LIGHT: adjust LCD backlight brightness level (0% to 100%).

AUTO OFF: time to turn off the device automatically after not being operated.

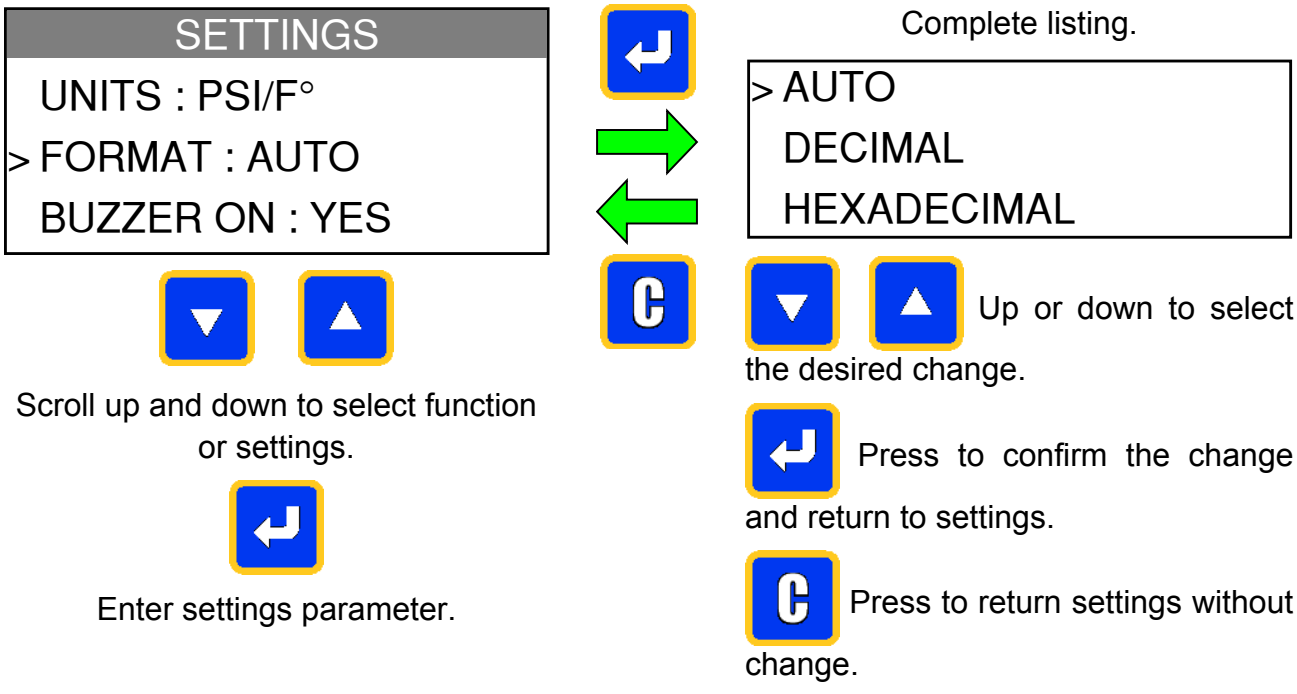
HIDE VEHICLES: to turn off display of vehicles brands in "**VEHICLE SELECTION**" menu.

EXPORT DATA: to send to SD card.

8.2. CHANGE UNITS



8.3. CHANGE FORMAT



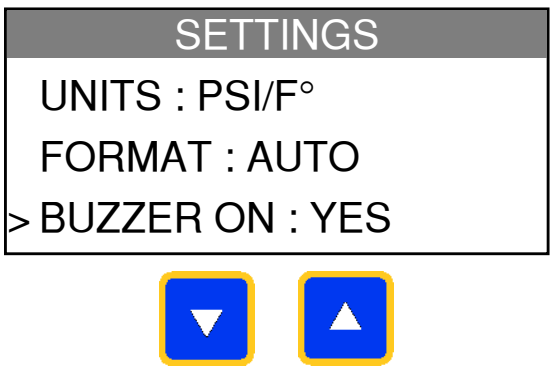
AUTO: display sensor ID format in the way sensor is transmitting.

DECIMAL: force to display sensor ID in decimal (0 to 9).

HEXADECIMAL: force to display sensor ID in hexadecimal (0 to F).

8.4. Change Buzzer on Settings

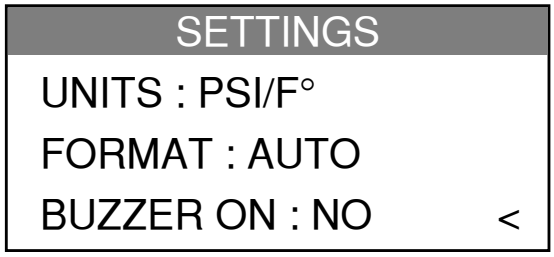
When buzzer on is set to **YES**, a beep is triggered when the sensor ID is detected.



Scroll up and down to select function or settings.

Enter settings parameter.

Change by **YES** or **NO**.

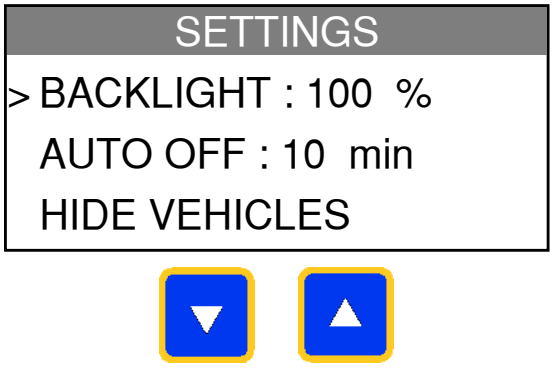


Up or down to select the desired change.

Press to confirm the change and return to settings.

Press to return settings without change.

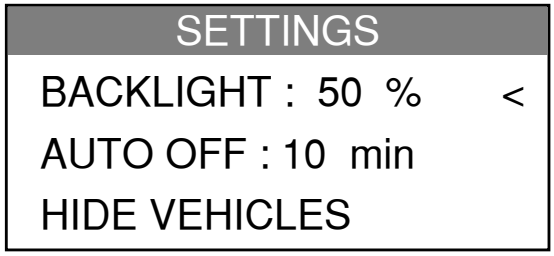
8.5. Change Backlight Intensity



Scroll up and down to select function or settings.

Enter settings parameter.

Change by **0%** (backlight off) to **100%** (maximum).

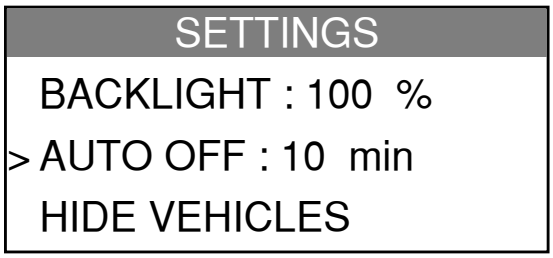


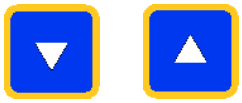
Up or down to select the desired change.

Press to confirm the change and return to settings.

Press to return settings without change.

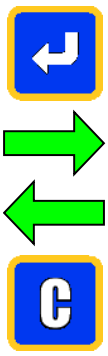
8.6. CHANGE AUTO OFF SETTINGS



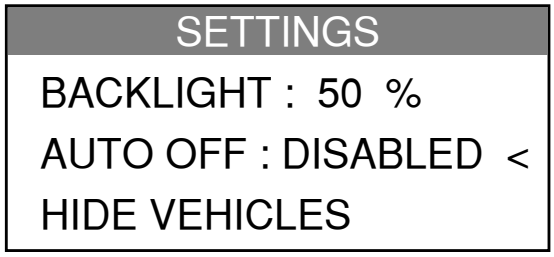


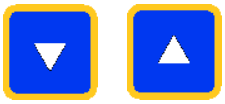
Scroll up and down to select function or settings.

Enter settings parameter.



Change by **60 min** (maximum) to **DISABLED** (never).

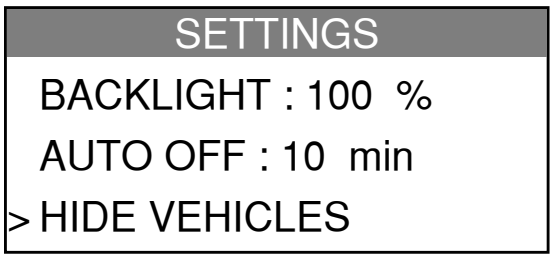


 Up or down to select the desired change.

Press to confirm the change and return to settings.

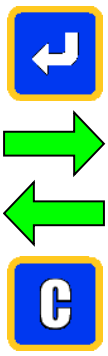
Press to return settings without change.

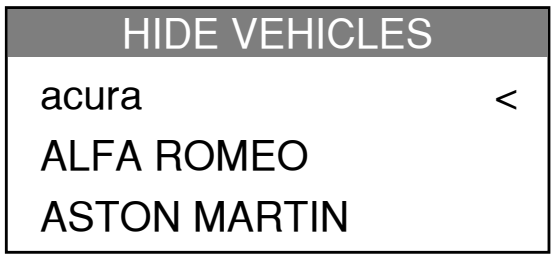
8.7. HIDE VEHICLES

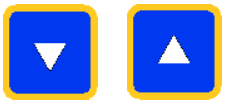


Scroll up and down to select function or settings.

Enter settings parameter.





 Up or down to select the vehicle to hide.

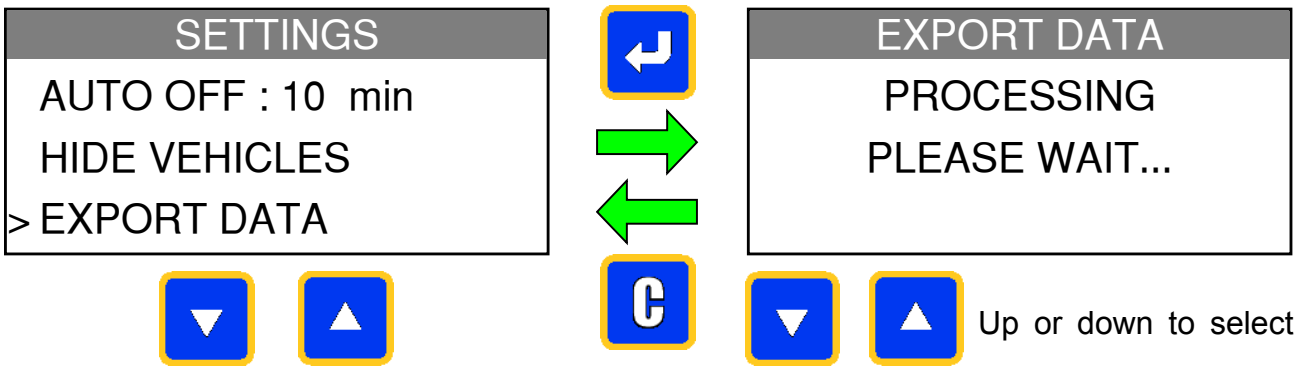
Press to enter.

Up or down to hide (lower case for hide).

Press to return settings without change.

When the brand name is in lowercase, it won't appear in the "**VEHICLE SELECTION**" list.

8.8. DATA EXPORT



Scroll up and down to select function or settings.

Enter settings parameter.

Up or down to select the vehicle to hide.

Press to enter.

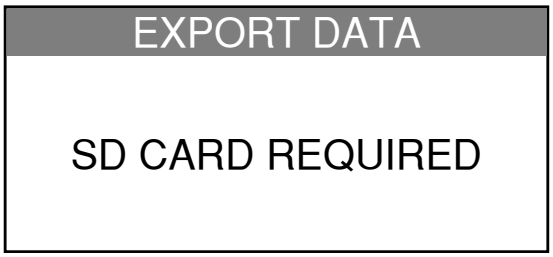
Up or down to hide.

Press to return settings without change.

Slot for micro SD card (Fig. 5):

Fig. 5

If no SD card in the slot, the following message will appear.



The data is exported as TXT files. The name format of these files is: **HISxxx.TXT**.

HIS: for history and **xxx** for the incremental number of the files.

***Note**: These counters are reset to zero every time the "Data Export" feature is used.*

8.8.1. Example of TXT file

The TXT file displays the serial number, updates, power cycles and the number of triggers and relearns since the last export.

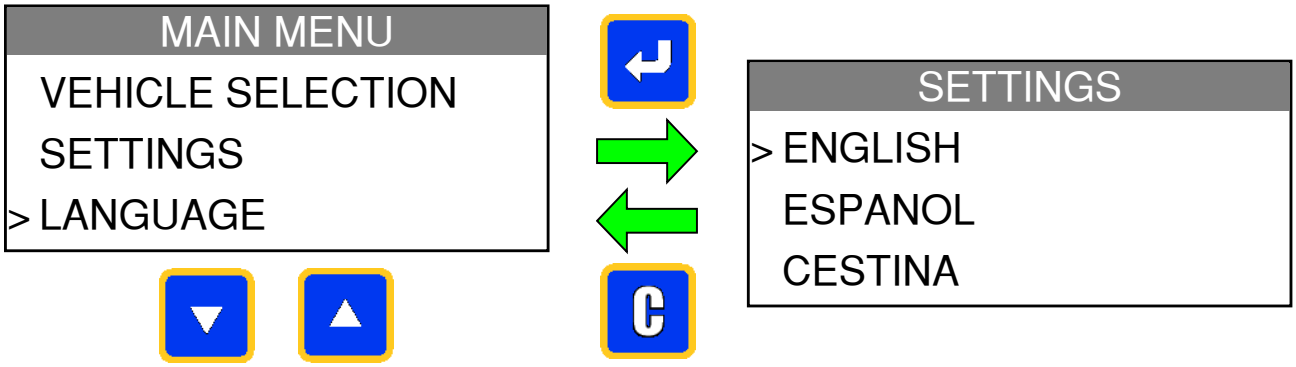
Example of print out as in fig:

SERIAL NUMBER	B285-06850	
SW VERSION	CN1-00	
UPDATES	1	
POWER CYCLES	300	
	SENSOR TRIGGERS	ECU RE-LEARNS
TOTAL	12	0
ACURA	0	0
ASTON MARTIN	0	0
AUDI	0	0
BENTLEY	0	0
BMW	0	0
BMW MOTORCYCLE	3	0
BUGATTI	0	0
BUICK	0	0
CADILLAC	0	0
CHEVROLET	0	0
CHRYSLER	0	0
CITROEN	0	0
DODGE	0	0
FERRARI	0	0
FIAT	0	0
FORD	0	0
GMC	0	0
HONDA	0	0
HONDA MOTORCYCLE	0	0
HUMMER	0	0
HYUNDAI	0	0
INFINITI	0	0
ISUZU	0	0
JAGUAR	0	0
JEEP	0	0
KIA	0	0
LAMBORGHINI	0	0
LANCIA	0	0
LAND ROVER	0	0
LEXUS	0	0
LINCOLN	0	0
LOTUS	0	0
MASERATI	0	0
MAYBACH	0	0
MAZDA	0	0
MERCEDES	0	0
MERCURY	0	0
MINI	0	0
MITSUBISHI	0	0
NISSAN	4	0
OPEL_VAUXHALL	0	0
PLYMOUTH	0	0
PONTIAC	0	0
PORSCHE	0	0
RENAULT	0	0
ROLLS ROYCE	0	0
SAAB	2	0
SATURN	0	0
SCION	0	0
SMART	0	0
SUBARU	0	0
SUZUKI	0	0
TOYOTA	3	0
VOLKSWAGEN	0	0
VOLVO	0	0

Fig. 6

9. LANGUAGE

9.1. ENTER SETTINGS MENU



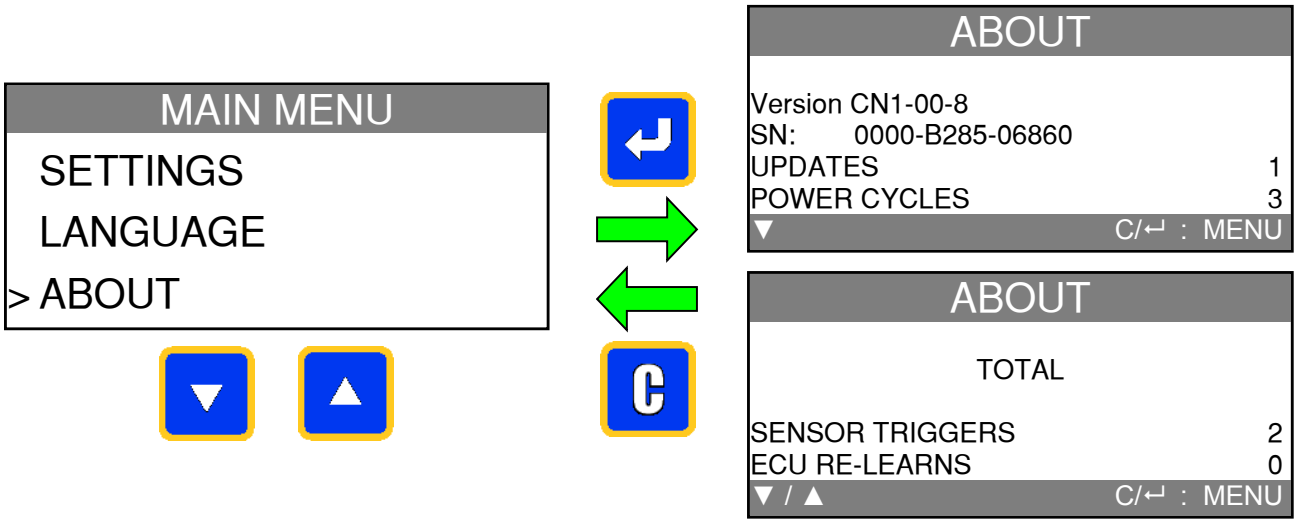
Complete listing.

Scroll up and down to select language.

Validate by enter key.

10. ABOUT

Displays the current version and information about the device.



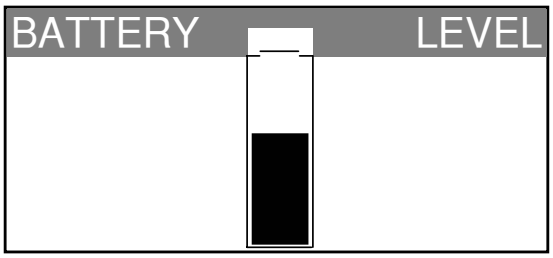
Scroll up and down to see information about the number of "**Sensor Triggers**" and "**ECU Re-learns**" by vehicle Make.

***Note**: These counters are reset to zero every time the "Export Data" feature is used.*

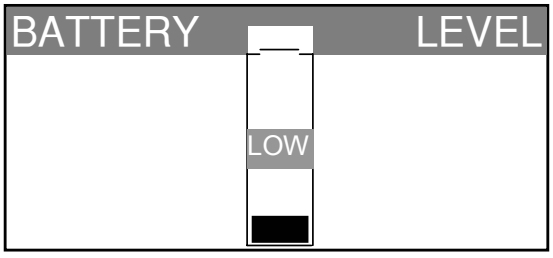
11. CHARGE

Low Battery Indication

Your **TPMS TOOL** incorporates a low battery detection circuit. Battery life is an average of 1000 sensor tests per battery charge (approximately 200-250 cars).



When battery is low, the battery screen is flashing with the message "**LOW**" and the red light "**LOW BAT**" is on.



LOW BAT

The power button may also be pressed and held for a second to display battery status.

Battery Charging

Power supply connector

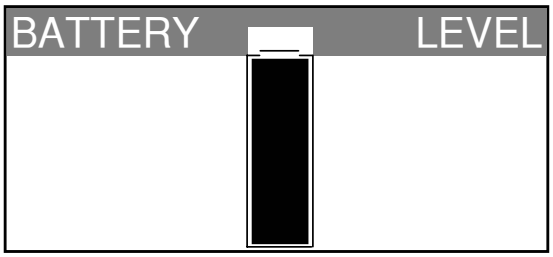
Fig. 7

When the battery is low, the “status bar” appears every 10 seconds. This display will stop when the battery loses power.

Plug the supply jack to the tool and plug the supply in a appropriate outlet. The LED "**CHARGE**" light will turn on.

It’s not recommended to use the tool with low battery status because the transmission and emission may not be reliable.

Once charged, the bar graph is full and the LED "**CHARGE**" light turns off.



Battery replacement

The tool must be returned to the factory for battery replacement.

Opening the tool or tampering with the seal placed on the tool, if broken will void the warranty

12. TROUBLESHOOTING

If the **TPMS TOOL** is unable to trigger one or more of the sensors, using either electronic or magnetic activation, please use the following troubleshooting guide:

1) The vehicle does not have a sensor even though a metal valve stem is present. Be aware of Schrader rubber style snap-in stems used on TPMS systems.

2) The sensor, module or ECU itself may be damaged or defective.

3) The sensor may be the type that periodically triggers on its own and is not designed to respond to a triggering frequency.

4) Your **TPMS TOOL** may require a software upgrade.

5) Check "**Auto Off**" time settings for screen display.

6) Your **TPMS TOOL** is damaged or defective.

13. TOOL UPDATE

Upgrading Your TPMS TOOL

As a new protocol becomes available, it will become necessary to upgrade your tool. Please follow the steps rbelow:

***IMPORTANT**: Temporarily turn off all of the anti-virus and spam blocking software on your computer. This is necessary to ensure a successful upgrade.*

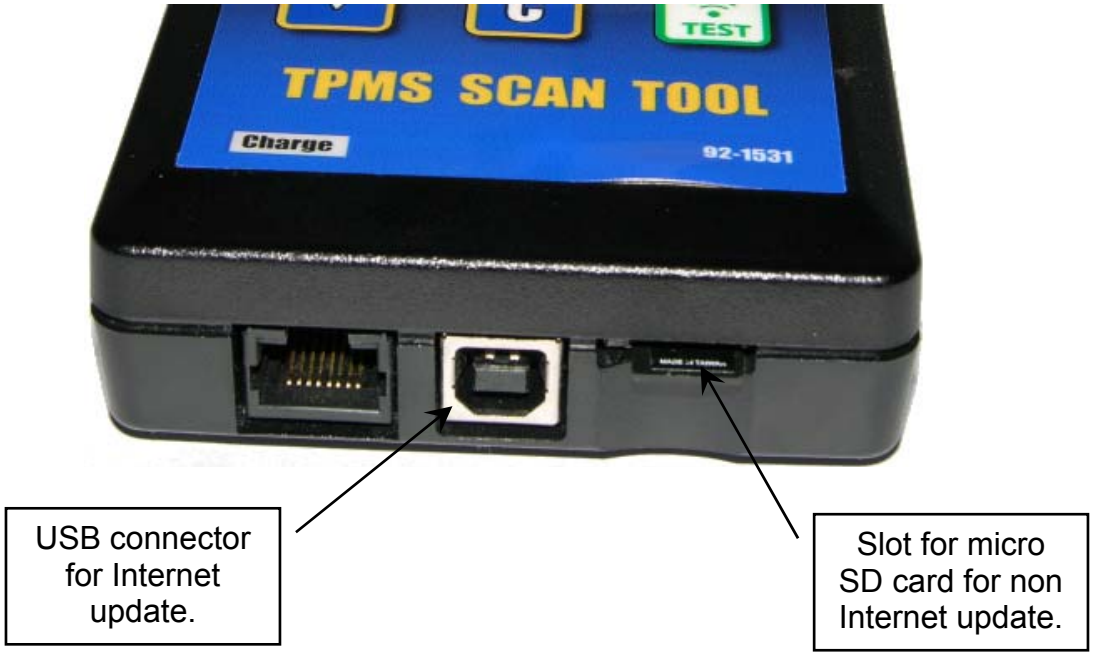


Fig. 8

13.1. INSTALL WEBTPM PC SUITE

1) Connect the TPMS TOOL to the USB port of your PC to properly install the drivers. See Fig. 8.

2) Insert the CD, supplied with your tool, into the PC drive and click on the **WebTPM** icon to start the program.

3) A screen will appear that says "**Welcome to the Install Shield Wizard for WebTPM.**" Click "**Next >**"

4) A window will appear to choose destination location, click "**Next >**"

5) Click "**Yes**" when the following window appears. See Fig. 9.

6) Click "**Finish**" when the **WebTPM** installation is complete.

New Software Upgrades

As new software becomes available, you will be alerted on your computer monitor.

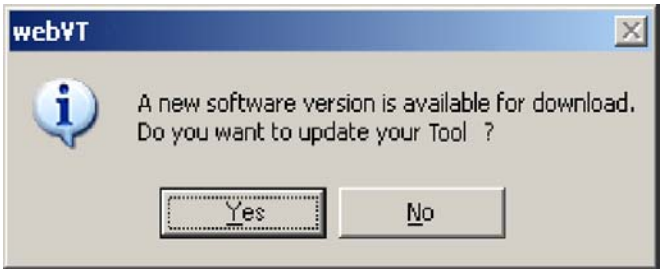


Fig. 9

***Note**: To order annual update software part number, please see your dealer for availability and pricing.*

13.2. USB INTERNET OPTION UPDATING

Before updating, ensure that the battery charge is full.

1) Connect the USB cable from the **TPMS TOOL** to the **PC**, and turn the device on.

2) Start **WebTPM** software.

3) A screen will appear indicating "**Update Device**".

4) You can also print "**Valve IDs**" from here as well.

5) Press "**Yes**" to update to the latest software version. Update will take several minutes to complete and the status bar will indicate the percentage of update completed.

Warning!

Do not disconnect the TPMS TOOL from the PC or turn off your computer during the update process. This may result in serious damage to the tool.

13.3. MICRO SD CARD OPTION (NON INTERNET) UPDATING

Before updating, ensure that the battery charge is full.

1) Place the **Micro SD card** into slot, pins facing upwards.

2) Turn the **TPMS TOOL** on and go to Main Menu.

3) Scroll down to **TPMS TOOL** Update and press enter.

4) Scroll down to **YES** and press enter.

5) You will now see File Selection, press the key.

6) The tool will now update its software version.

7) When installation is complete, the tool will automatically turn off. **Remove the Micro SD card**.

8) Turn the **TPMS TOOL** on. The latest software version will be displayed on the screen.

Warning!

Do not turn off the TPMS TOOL or extract the SD card during the update process. This may result in serious damage to the tool.

14. PRINTING RESULTS

***Note**: This feature is only available after the user has triggered the sensors in the vehicle, and the tool has not been turned off.*

1) Connect the USB cable from the **TPMS TOOL** to the **PC**. Click on the **WebTPM** icon to start the program.

2) A screen will appear indicating "**Update Device**" or print "**Valve IDs**" from here as well.

3) Select "**Valve IDs**".

Printing Result function may not be available if the software driver is not installed.

Example of print out can be seen in **Fig. 10**.

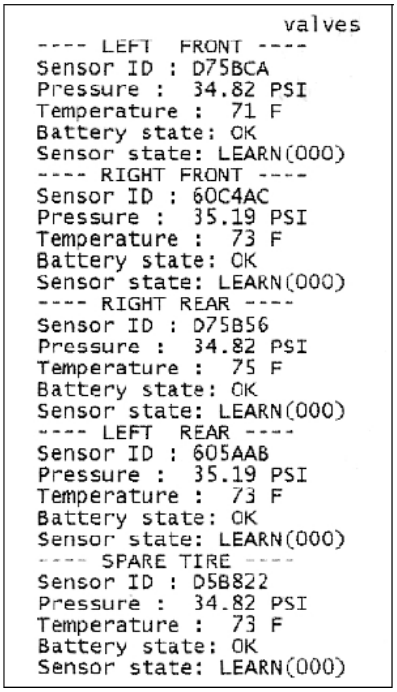


Fig. 10

15. LIMITED HARDWARE WARRANTY

Napa Limited Hardware Warranty

Napa warrants to the original purchaser that your Napa hardware product shall be free from defects in material and workmanship for the length of time, identified on your product package and/or contained in your user documentation, from the date of purchase. Except where prohibited by applicable law, this warranty is nontransferable and is limited to the original purchaser. This warranty gives you specific legal rights, and you may also have other rights that vary under local laws.

Remedies

Napa's entire liability and your exclusive remedy for any breach of warranty shall be, at Napa's option, (1) to repair or replace the hardware, or (2) to refund the price paid, provided that the hardware is returned to the point of purchase or such other place as Napa may direct with a copy of the sales receipt or dated itemized receipt. Shipping and handling charges may apply except where prohibited by applicable law. Napa may, at its option, use new or refurbished or used parts in good working condition to repair or replace any hardware product. Any replacement hardware product will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer or for any additional period of time that may be applicable in your jurisdiction.

This warranty does not cover problems or damage resulting from (1) accident, abuse, misapplication, or any unauthorized repair, modification or disassembly; (2) improper operation or maintenance, usage not in accordance with product instructions or connection to improper voltage supply; or (3) use of consumables, such as replacement batteries, not supplied by Napa except where such restriction is prohibited by applicable law.

How to Obtain Warranty Support

Before submitting a warranty claim, we recommend you visit the support section at www.napaechlin.com for technical assistance. Valid warranty claims are generally processed through the point of purchase during the first thirty (30) days after purchase; however, this period of time may vary depending on where you purchased your product – please check with Napa or the retailer where you purchased your product for details. Warranty claims that cannot be processed through the point of purchase and any other product related questions should be addressed directly to Napa. The addresses and customer service contact information for Napa can be found in the documentation accompanying your product and on the web at www.napaechlin.com .

Limitation of Liability

NAPA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR PRODUCT EVEN IF NAPA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some jurisdictions do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Duration of Implied Warranties

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS ON THIS HARDWARE PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THE APPLICABLE LIMITED WARRANTY PERIOD FOR YOUR PRODUCT. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

National Statutory Rights

Consumers have legal rights under applicable national legislation governing the sale of consumer goods. Such rights are not affected by the warranties in this Limited Warranty.

No Other Warranties

No Napa dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

16. RECYCLING

Do not dispose of the rechargeable Lithium-Ion battery or the tool to the dustbin.

These components must be collected and recycled.

	The crossed-out wheeled dustbin means that the product must be taken to separate collection at the product end-of life. This applies to your tool but also to any enhancements marked with this symbol. Do not dispose of these products as unsorted municipal waste. For further information, please contact Napa.

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