

# *CUB SENSOR AID DUO TPMS TOOL*

*For VS-60U024 / VS-60U029 Series*

**Brand Name : Cub**  
**Model Name : VS60U029**  
**Product Name : Sensor AID DUO TPMS  
TOOL**

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## Specification:

Item	Specification
Operating Frequency	125kHz,2.4Ghz
Power Input / Current	5V/2A
Operating Current	380 mA(Max 600 mA)
Operating Temperature	0 ~ 40 °C (32 - 104°F)
Storage temperature	-20 ~ 60 °C (-4 - 140°F)
Operating Humidity	20-90%
Storage Humidity	20-90%
Size(rubber)	210*102*62mm
Weight	630g ± 5% ( 60U029 series) 610g ± 5% ( 60U024 series)

## Part List

NO	Item	Q'ty
1	Sensor Aid TOOL	1
2	OBD II cable	1
3	Charger ( 5V/2A)	1
4	Mirco usb cable	1
5	Magnet	1
6	User manual	1
7	BT OBD II	1

# 1. Sensor AID DUO TPMS TOOL Introduction

Sensor AID DUO TPMS TOOL, henceforth called Sensor AID DUO, is designed to promote CUB Uni-Sensor in the whole world. Sensor AID DUO TOOL can diagnose and interact with tire pressure sensor through wireless (radio frequency) communication to:

- Retrieve data from tire pressure sensor
- Verify the identity of each tire pressure sensor mounted on the wheels.
- Assist technicians in servicing CUB Uni-Sensor during relearn procedures.

NOTE: Sensor shall be diagnosed close to left or right antenna.

## 1.1 Appearance



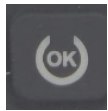
## 1.2 Keypad Summary



Power On / Off



Navigate through measured and parameters by pressing keys



OK key, press it to validate or process function.



Home key, Back to main menu



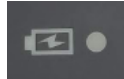
Esc key, press it to return to the previous menu without parameter validation



Tread Depth mechanism. This function is for the 60U029 series.



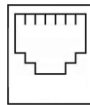
Indicator will turn red when battery is low



Indicator will turn orange when charging



The Micro-USB connection For charging (5V/2A) / IDtoPC / updating



RJ11 cable. Function pending



LED for Camera



AF Camera

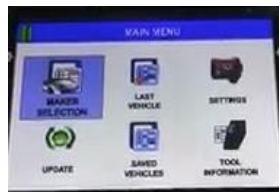
## 2. Function



Press and hold the power key for 3 seconds to power on the device



During power on, The device display the CUB logo



Now the device is at the MAIN MENU

## 2.1 MAKER SELECTION

**NOTE:** Definition



OK key : Select / Validate / Process



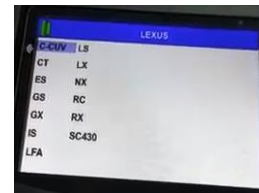
Arrow Key : Use arrow keys to browse



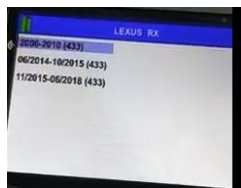
**MAIN MENU:**  
Use the arrow key to browse function, press the "OK" key to select



**MAKER selection:**  
Use the arrow key to browse automakers, press the "OK" key to select



**MODEL selection:**  
Use the arrow key to browse model, press the "OK" key to select.

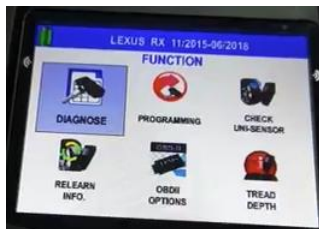


**YEAR selection:**  
Use the arrow key to browse model, press the "OK" key to select.



**FUNCTION selection.**  
Press the "OK" key to select DIAGNOSE function.

### 2.1.1 DIAGNOSE



#### 2.1.1.1 Diagnose SINGLE SENSOR



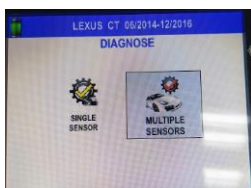
Use the arrow key to select diagnose "SINGLE SENSOR" or "MULTIPLE SENSORS" and press the "OK" key to select.

Sensor AID will now activate the sensor. Sensor response time may vary depending on sensor type and brand. Sensor AID will sound after receiving sensor information.

The picture above is an example of sensor data communication result

**NOTE** The Sensor AID will identify the sensor information that is transmitted.  
Not all sensors transmit every piece of information shown.

### 2.1.1.2 Diagnose MULTIPLE SENSORS



Use the arrow key to browse MULTIPLE SENSORS, press the "OK" key to select.



Press "OK" key to diagnose.

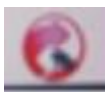


After retrieving data from sensor, the indicator light will automatically move to next wheel. Press "OK" key to diagnose. Use the same procedure for the other wheels.

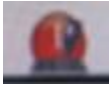
The picture below is an example of sensor data communication result



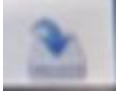
**DIAGNOSE:** To diagnose sensor information.



**PROGRAMMING :** a shortcut to the Programming menu- (See page 6).



TREAD DEPTH: To process TREAD DEPTH function (See page xxx).



SAVE: To save the existing data to SAVED VEHICLES menu (will be enabled when there is existing data, see page XX).

## 2.1.2 PROGRAMMING

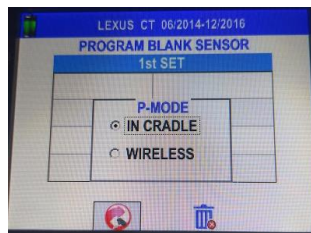


See step 2.1.1, then use arrow key to browse. Press "OK" key to enter.

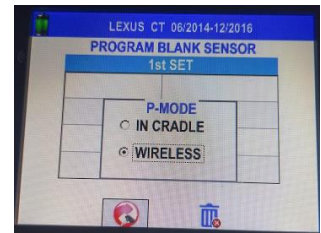
### 2.1.2.1 NEW SENSOR



Select New Sensor. Press "OK" key to enter.



Press "OK" key to program.



Use the arrow key to browse WIRELESS (as example). Press "OK" key to program.

#### HINT:

**IN CRADLE:** Indicates programming by wire (Uni-Sensor must be placed inside cradle).

**WIRELESS:** Indicates programming by wireless (Wireless Uni-Sensor must be within programming range from the tool)

**NOTE:** Make sure there are no other Wireless Uni-Sensors within 1 m from the tool when you use wireless programming ; otherwise, the programming will fail.



Program blank sensor. When selected and pressing the "OK" key, it will

automatically program the next Uni-Sensor in the same way (in cradle/wireless) as previously selected.



DEL ALL: Delete all the existing data of all the previously programmed

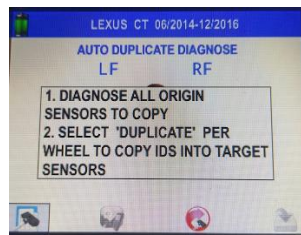
Uni-Sensors.




## 2.1.2.2 AUTO DUPLICATE




See step 2.1.2, then use arrow key to browse. Press “OK” key to enter.




An instruction message will be displayed during 4 seconds, then will automatically disappear

 **DIAGNOSE:** If there is no existing data, diagnose all sensors that you wish to duplicate at the beginning

 **DUPLICATE:** Will be enabled when at least one sensor is diagnosed. Select it and press “OK” to duplicated all previously diagnosed sensor.

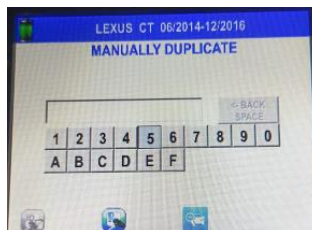
 **PROGRAMMING:** a shortcut to the Programming menu.

 **SAVE:** To save the existing data to SAVED VEHICLES menu (will be enabled when there is existing data, see page XX).

## 2.1.2.3 MANUALLY DUPLICATE



See step 2.1.2, then use arrow key to browse. Press “OK” key to enter.



Use the arrow keys to browse. Press “OK” key at each character to enter the ID, then select Duplicate and press “OK” key.

Please check if O.E sensor ID is Hexadecimal (0~9+A~F) or Decimal (0~9) to select correct mode in Manual Duplicate.

**NOTE** Duplicate and Programming functions will only work with CUB's Sensor-AID and Uni-sensor.



**Duplicate:** To duplicate a manual ID to a Uni-Sensor (will be enabled after keying in first character).



**HEX to DEC:** To change between HEX and DEC ID formats (enabled at the beginning, becomes disabled once first character is keyed in).



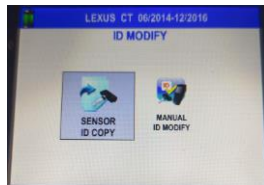
**ID VIEW:** To see the ID location on the OE sensor.

### 2.1.2.4 ID MODIFY

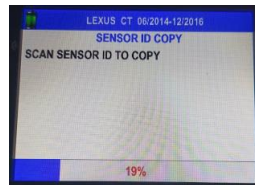


See step 2.1.2, then use arrow key to browse. Press "OK" key to enter.

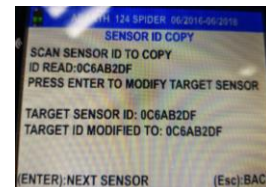
#### 2.1.2.4.1 SENSOR ID COPY



Press "OK" key to enter.

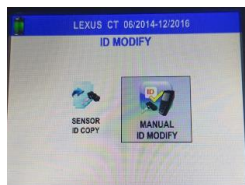


Function immediately starts scanning for a source sensor whose ID will be copied.

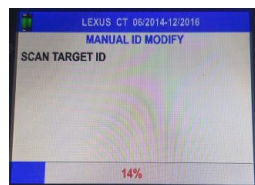


After source ID is detected, press "OK" key to copy ID into target sensor.

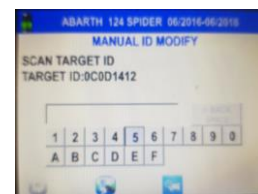
#### 2.1.2.4.2 MANUAL ID MODIFY



Press "OK" key to enter.



Function immediately starts scanning for a source sensor whose ID will be copied.

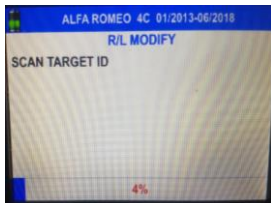


After source ID is detected, key in new ID by means of the keyboard, then select Modify and press "OK" key.

### 2.1.2.5 L <-> R



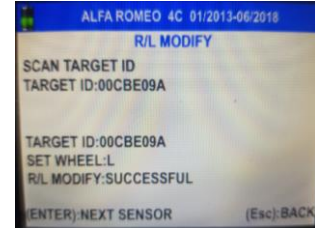
See step 2.1.2, then use arrow key to browse. Press "OK" key to enter.



Function immediately starts scanning for a source sensor whose side will be changed.



Once source ID is detected, select side to program to



The above message confirms the successful side programming.

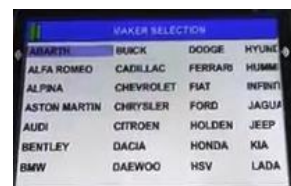


If a Wireless Sensor is detected, the message above is displayed. Press "ESC" key to go back.

### 2.1.2.6 BACK TO MAKER MENU



See step 2.1.2, then use arrow key to browse. Press "OK" key to enter.



Back to MAKER SELECTION

### 2.1.3 CHECK UNI-SENSOR

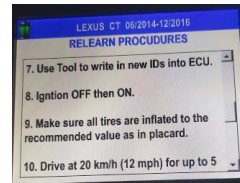


See step 2.1.1 then use arrow key to browse. Press "OK" key to enter.

Function immediately starts scanning for a Uni-Sensor.

Once detected, the screen above is displayed. Press "OK" key to scan the next sensor, or "ESC" to go back

#### 2.1.4 RELEARN INFO.



See step 2.1.1 then use arrow key to browse. Press "OK" key to enter.

Use up and down arrow keys to scroll.

#### 2.1.5 OBD II OPTIONS

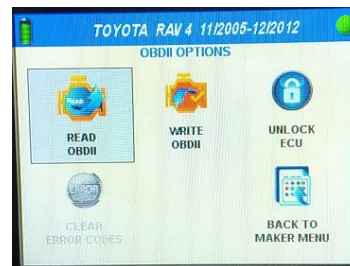


See step 2.1.1 then use arrow key to browse. Press "OK" key to enter.

**(BT disconnect)**



**(BT connecting)**

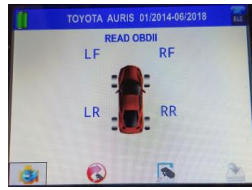


**Note: When you exit OBDII OPTION and back to OBDII OPTION immediately, it will cost 5-10 second to re-connect.**

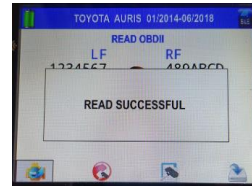
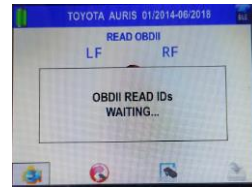
### 2.1.5.1 READ ID



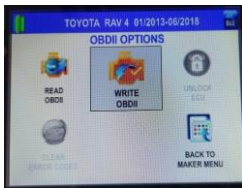
Press "OK" key to enter.



Press "OK" key to enter.



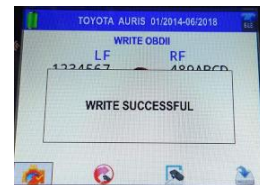
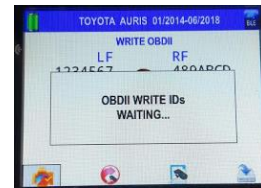
### 2.1.5.2 WRITE ID



Press "OK" key to enter.



Press "OK" key to enter.



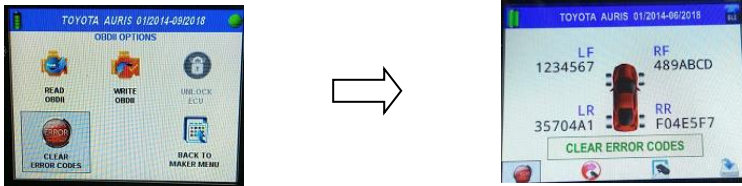
### 2.1.5.3 UNLOCK ECU



for some certain vehicles( Toyota )



### 2.1.5.4 CLEAR DTC



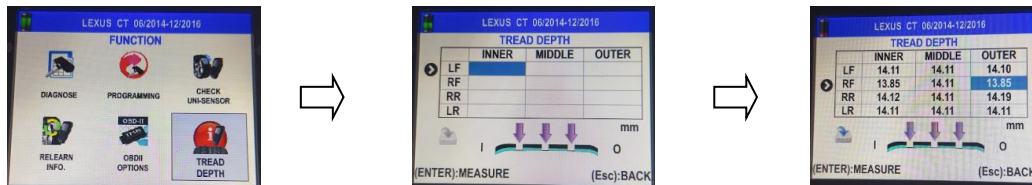
### 2.1.5.5 BACK



Back to MAKER SELECTION

### 2.1.6 TREAD DEPTH

**Alarm: Do not use the Tread Depth function on anyone's eyes, which can cause visual impairment.**



See step 2.1.1 then use arrow key to browse. Press "OK" key to enter.

Place tool with tread depth device in line with tread, then press "OK" key at each location (inner, middle & outer) for each tire.

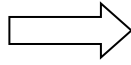
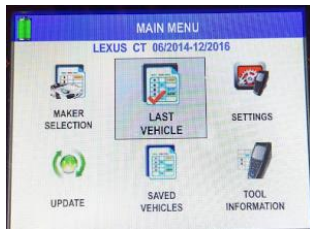
You may retake a measurement at any position by simply selecting it in the matrix, then pressing "OK" key.



SAVE (Will enable when there is existing data.)

## 2.2 LAST VEHICLE

This function is the shortcut to the last picked MMY. Select it and the MMY will be displayed above the icon. Press "OK" key to enter its function menu.



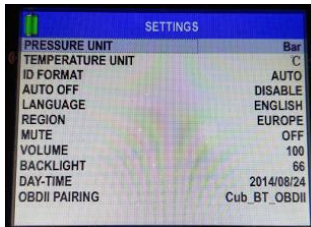
( LEXUS CT 06/2014-12/2016)

## 2.3 SETTINGS

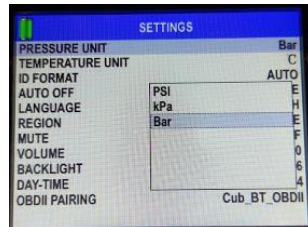


See step 2.1, then use arrow key to browse. Press "OK" key to enter.

### 2.3.1 PRESSURE UNIT

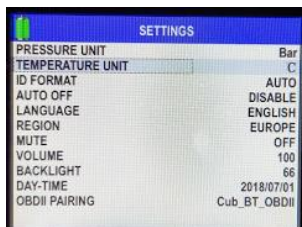


Press the "OK" key to select.

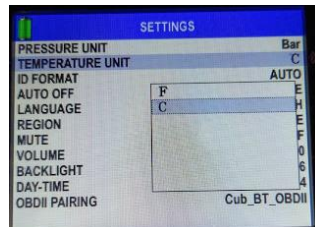


Use the arrow keys to browse units, press the "OK" key to select.

### 2.3.2 TEMPERATURE UNIT

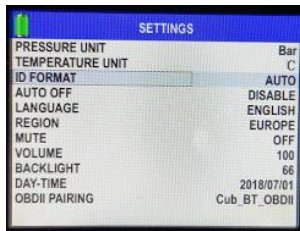


Press the "OK" key to select.

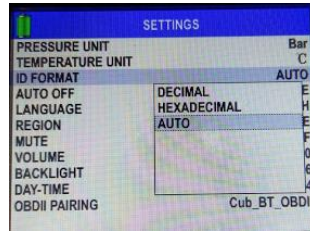


Use the arrow keys to browse units, press the "OK" key to select.

### 2.3.3 ID FORMAT

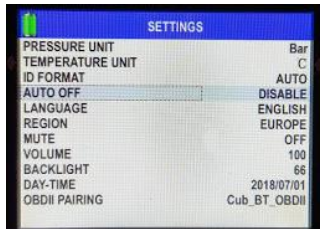


Press the "OK" key to select.

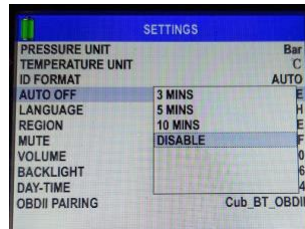


Use the arrow keys to browse formats, press the "OK" key to select.

### 2.3.4 AUTO OFF

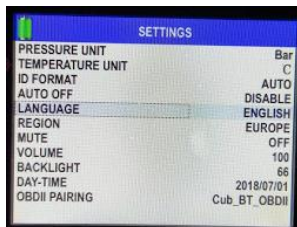


Press the "OK" key to select.

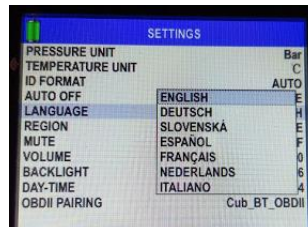


Use the arrow keys to browse options, press the "OK" key to select.

### 2.3.5 LANGUAGE

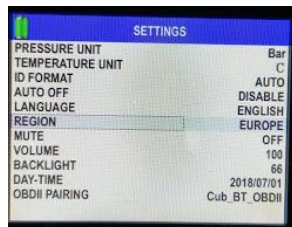


Press the "OK" key to select.

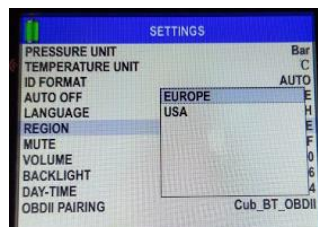


Use the arrow keys to browse languages, press the "OK" key to select.

### 2.3.6 REGION



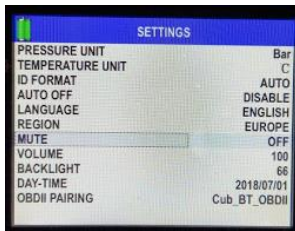
Press the "OK" key to select.



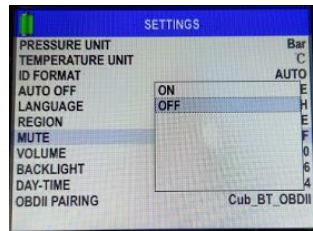
Use the arrow keys to browse regions, press the "OK" key to select.



### 2.3.7 MUTE

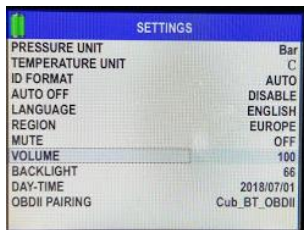


Press the "OK" key to select.

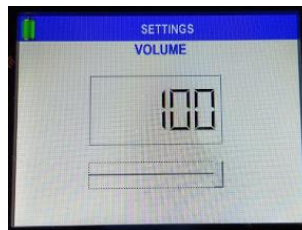


Use the arrow keys to browse options, press the "OK" key to select.

### 2.3.8 VOLUME

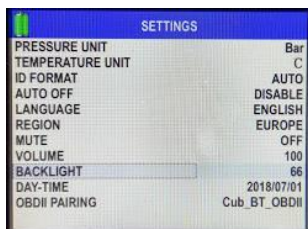


Press the "OK" key to select.

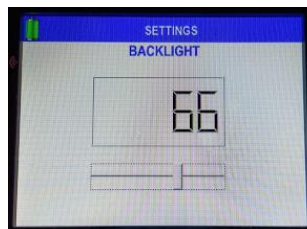


Use the arrow keys to browse volume levels, press the "OK" key to select.

### 2.3.9 BACKLIGHT

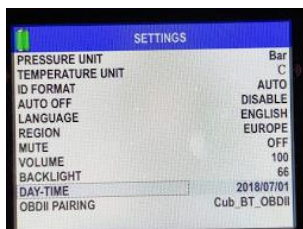


Press the "OK" key to select.



Use the arrow keys to browse backlight levels, press the "OK" key to select.

### 2.3.10 DAY-TIME

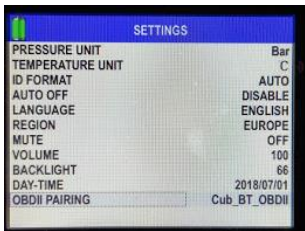


Press the "OK" key to select.

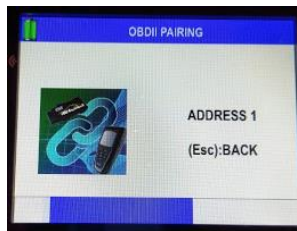


Use the arrow keys to adjust date and time, then press "OK" to set.

### 2.3.11 BT OBD II PAIRING



Connect the Cub BLE OBD II Module to the OBD port of the vehicle, then turn ACC on. In the Sensor AID, under Settings, select OBD II pairing and then press "OK" key to select



The pairing process begins immediately; it may take several seconds.



Wait for the process to complete.



Once the pairing is completed, the above message is displayed.

### 2.4 UPDATE



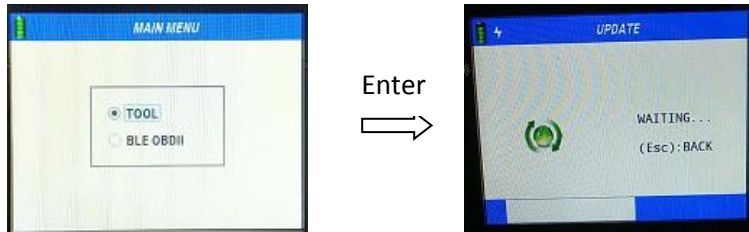
Update tool by PC software.



Update BT OBD II Module.  
(Make sure BT Module is plug on a vehicle.)

## 2.4.1 WIRE UPDATE by PC software

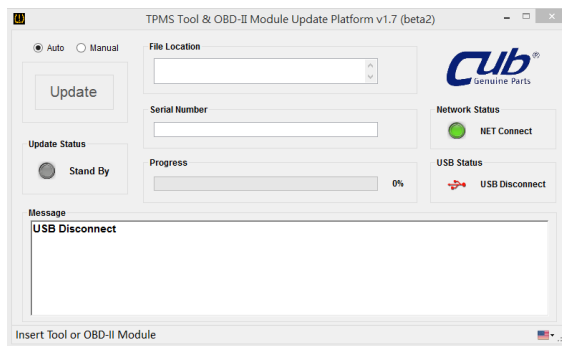
1.



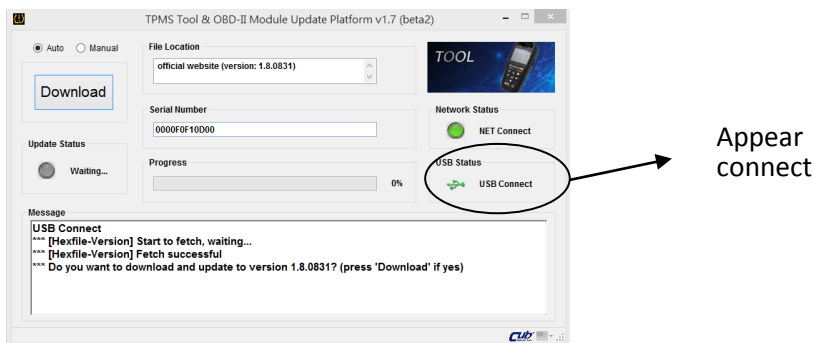
2. Extract the file [Cub] TPMS Tool & OBD-II Module Update Platform v1.7 (beta2)(lite).zip



3. Execute Cub Updater.exe

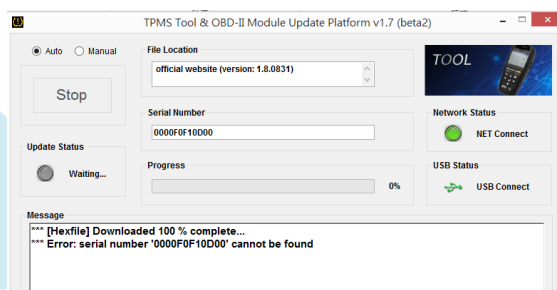


4. Connect Mico usb to TOOL and PC usb port.

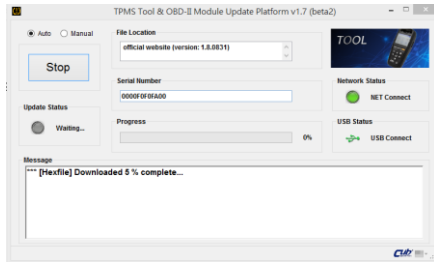


5. Click "Download" for auto update

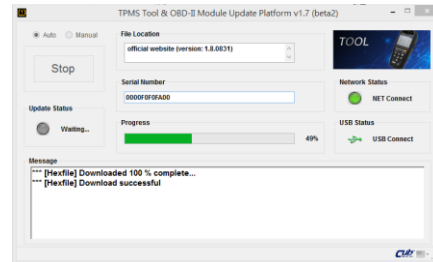
5.1 SN is invalid. You will see the error message "Serial number "0000F0F10F00" cannot be found". Please contact your distributor/dealer.



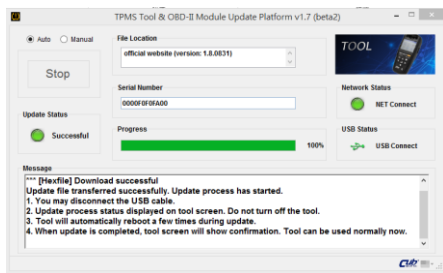
## 5.2 SN is valid.



Download file from server



Transmit file to tool



Transmit completed.  
Disconnect usb cable. Wait for  
tool update.

## 2.4.2 BT OBD II module UPDATE

Note: Before you do the OBDII update, please plug OBD II module into an OBD II connector of  
any vehicle in order to have the power source for the OBDII module.



Update Mode



Cub\_BT\_OBDII



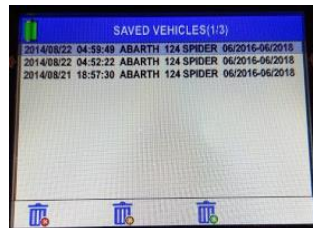
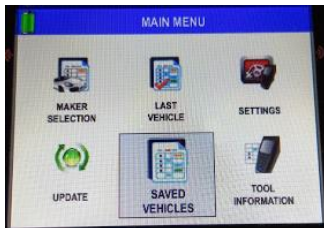
OBDII is updating



Reboot

Update Complete

## 2.5 SAVED VEHICLES



DEL ALL DEL OLDEST DEL SELECTED

See step 2.1, then use arrow key to browse. Press "OK" key to enter.

Use arrow keys to select saved vehicle, press "OK" key to enter.

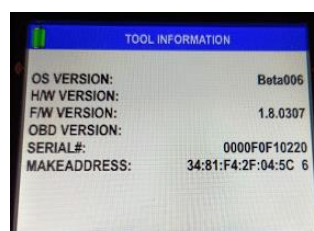
There are three options underneath:

DEL ALL – Deletes all data

DEL OLDEST – Deletes oldest saved vehicle only

DEL SELECTED – Deletes selected saved vehicle only

## 2.6 TOOL INFORMATION



See step 2.1, then use arrow key to browse. Press "OK" key to enter.

Tool information is displayed:

OS – Operating System

H/W – Hardware

F/W – Firmware

MAC ADDRESS

### 3. Warranty

CUB autoparts products are guaranteed from material defects for 365 days after the date of purchase. If the product fails under normal circumstances within the first year, CUB autoparts will repair or replace the product. Product will not be replaced or repaired if damaged from misuse or incorrect application. To obtain repair or replacement of the product under warranty, contact local distributor. Proof of purchase and date of purchase is required to validate the warranty claim.

CUB autoparts is not liable for any direct or consequential loss or property damage arising from use of product.

**NOTE** Warranty does not cover tire valves or screws for tire valves. The tire valves and screws need to be replaced when rotating tires, changing tires or changing the TPMS sensors. If installing/reinstalling a TPMS sensor, new valves and screws should be used.



**Warning: Only use Cub autoparts replacement parts. Using other brands will not allow the system to work and will void the warranty.**

### Caution

Read these simple guidelines. Not following them may be dangerous or illegal. Read the complete user guide for further information.



#### SWITCH ON SAFELY

Do not switch the device on when wireless use is prohibited or when it may cause interference or danger.



#### SWITCH OFF NEAR BLASTING

Fellow any restrictions, Do not use the device where blasting is in progress.



#### USE SENSIBLY

Use only in the normal position as explained in the product documentation. Do not touch the antenna unnecessarily.



**WATER-RESISTANCE** The device is not water-resistant. Keep it dry.



#### ENHANCEMENTS AND BATTERIES

Use only approved enhancements and batteries. Do not connect incompatible products. The battery needs to be charged to full for the first usage.



#### SWITCH OFF WHEN REFUELLING

Do not use the device at a refueling point. Do not use near fuel or chemicals.





#### INTERFERENCE

All wireless devices may be susceptible to interference, which could affect performance.



#### CONNECTING TO OTHER DEVICES

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.



#### QUALIFIED SERVICE

Only qualified personnel may install or repair this device.



**RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.**

#### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### IC Statement

The requirement is specified in RSS-GEN Section 5.3. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

#### CE Compliance Notice

All CE marked HERTH+BUSS sensor products are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the Declaration of Conformance will be provided upon request.



#### 15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

#### 15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. 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 of the device.

#### **SAR FCC RF Radiation Exposure Statement:**

Federal Communication Commission (FCC) Radiation Exposure Statement

This EUT is compliance with SAR for general population/uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.



## Canada, Industry Canada (IC)

This Class B digital apparatus complies with Canadian ICES-003  
Cet appareil numérique de classe B est conforme à la norme NMB-003.

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

*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.*

### **SAR IC RF Radiation Exposure Statement:**

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual.  
Déclaration d'exposition aux radiations: Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.



CUB ELECPARTS INC

No.6, Lane 546, Sec.6, Chang Lu Rd., Fuhsin  
Hsiang, Chang Hua County, Taiwan

<http://www.cubautoparts.com>

To obtain repair or replacement of the product under warranty, or general inquiries, assistance, please refer to CUB information card to contact our local distributor.