TPMS Trigger Tool

TT03

User Guide

V0.4

Prepared by: Sysgration Inc. Cooperation

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Introduction

- Purpose

TT03 is a Bluetooth TPMS trigger tool. Sending the low frequency trigger signal wakeup TPMS, then displays tire Pressure /Temperature/TPMS serial number on screen.

- Operation scenario

User press button, trigger TPMS and get Pressure /Temperature/TPMS serial number on screen.

- TT03 2.4G antenna position:

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Button UI:

Screen state / Action	Power Off	Power On (display 2s)	Main Menu	SCAN / TRIGGER (no sensor)	SCAN / TRIGGER (searching)	SCAN / TRIGGER (found sensor)	HISTORY screen
Long press Power key (USB plug out)	Power on		Power off	Power off	Power off	Power off	Power off
Short press UP key			Cursor up				Cursor up
Short press Down key			Cursor down				Cursor down
Short press OK key			No response for TPMS INFO item				
Short press Cancel key				Back to BLE TPMS CHECK menu	Cancel trigger	Back to BLE TPMS CHECK menu	Back to main menu
Short press Trigger key				Start trigger		Start trigger	

Screen state / Action	INSPECT (no sensor)	INSPECT (searching)	INSPECT (found sensor)
Long press Power key (USB plug out)	Power off	Power off	Power off
Short press UP key			
Short press Down key			
Short press OK key			
Short press Cancel key	Back to BLE TPMS CHECK menu	Cancel trigger	Back to BLE TPMS CHECK menu
Short press Trigger key	Start trigger		Start trigger then connect

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Screen state / Action	BLE CONN TEST (no sensor)	BLE CONN TEST (searching)	BLE CONN TEST (found sensor)
Long press Power key (USB plug out)	Power off	Power off	Power off
Short press UP key			
Short press Down key			
Short press OK key			
Short press Cancel key	Back to main menu	Cancel trigger	Back to main menu
Short press Trigger key	Start trigger		Start trigger then connect

Screen state / Action	MMY RF TPMS CHECK (no sensor)	MMY RF TPMS CHECK (searching)	MMY RF TPMS CHECK (found sensor)
Long press Power key (USB plug out)	Power off	Power off	Power off
Short press UP key			
Short press Down key			
Short press OK key			
Short press Cancel key	Back to MMY menu	Cancel trigger	Back to MMY menu
Short press Trigger key	Start trigger		Start trigger then connect

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Screen state / Action	Settings menu	Enter combo box field	FW Upgrade screen	BT upgrade screen	USB upgrade screen (without USB plug in)	RESTORE screen	ABOUT screen
Long press Power key(USB plug out)	Power off	Power off	Power off	Power off	Power off	Power off	Power off
Short press UP key	Cursor up	Switch field data item	Cursor up				
Short press Down key	Cursor down	Switch field data item	Cursor down				
Short press OK key	Respond item: FW UPGRADE、RESTORE、ABOUT Other items no response		Respond item: USB、BLUETOOTH			Reset to default settings then back to settings menu	
Short press Cancel key	Back to main menu		Back to settings menu	Back to FW upgrade menu	Back to FW upgrade menu	Back to settings menu	Back to settings menu
Short press Trigger key							
Short press Left key		Exit combo box field					
Short press Right key	Jump to combo box field item pointed by cursor.						
Plug-in USB			Enter USB DFU				

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User Guide:

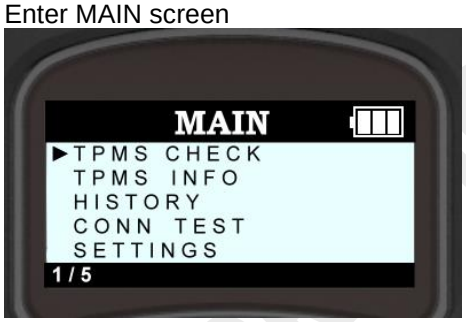
- Power on:

TT03 Screen

Display TT03 Home Page for 2 seconds when powering on.

Display TT03 information for 2 seconds when powering on.

Enter MAIN screen



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- Power off:

TT03 Screen
Note:TT03 Will keep power on if under TYPE-C connection.

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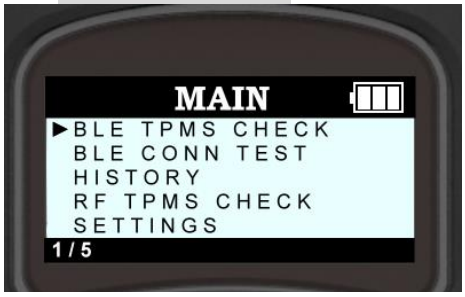
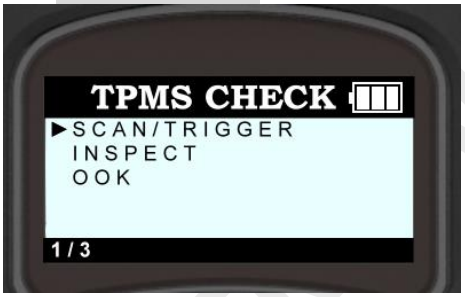
- Trigger Sensor :
  1. BLE TPMS CHECK: SCAN/TRIGGER

TT03 Screen

Press ▲ or ▼ to make the cursor move to "BLE TPMS CHECK" , then press OK to enter the "BLE TPMS CHECK" screen.

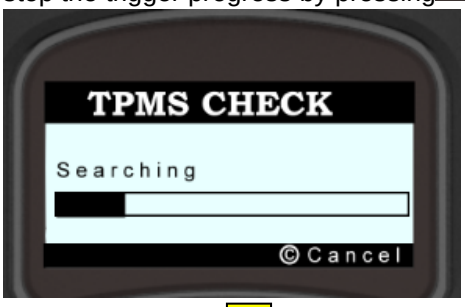


Press ▲ or ▼ to make the cursor move to "SCAN/TRIGGER" , then press OK to enter the "SCAN/TRIGGER" screen.

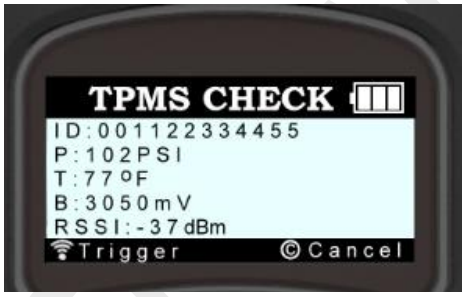


Press to trigger sensor

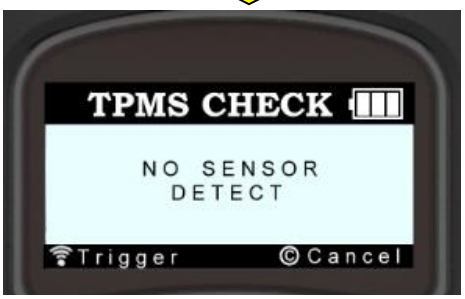
Start searching the sensor as below, or you can stop the trigger progress by pressing C.



Found the sensor



Fail to find the sensor



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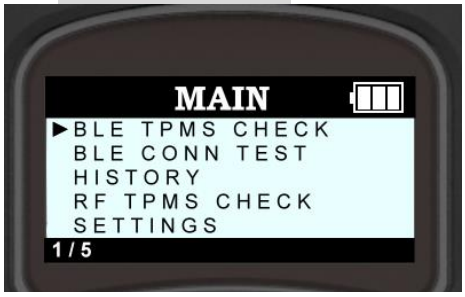
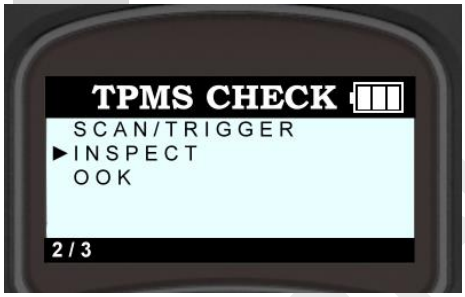
2. BLE TPMS CHECK: INSPECT

TT03 Screen

Press ▲ or ▼ to make the cursor move to "BLE TPMS CHECK" , then press OK to enter the "BLE TPMS CHECK" screen.

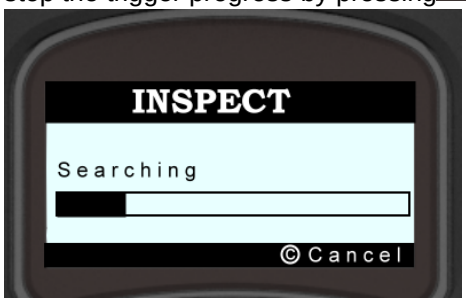


Press ▲ or ▼ to make the cursor move to "INSPECT" , then press OK to enter the "INSPECT" screen.



Press to trigger sensor

Start searching the sensor as below, or you can stop the trigger progress by pressing C.

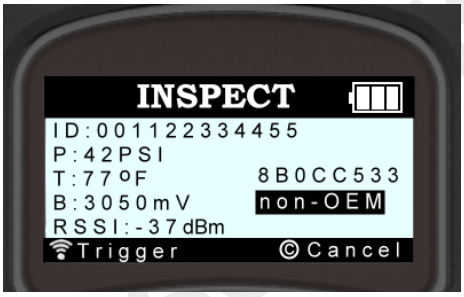


Found the sensor

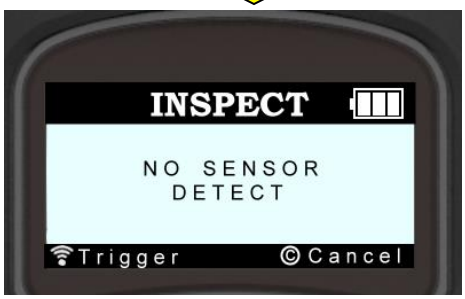
If result is OEM senor will display "PASS"

None OEM sensor

If result is none OEM sensor will display "non-OEM"



Fail to find the sensor



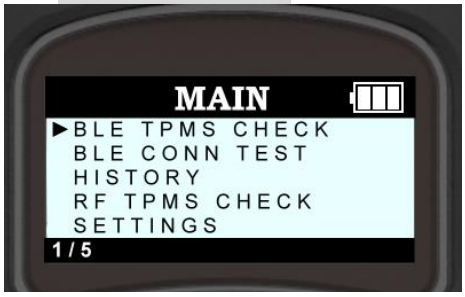
Connect fail

If inspect process not success will display "FAIL"

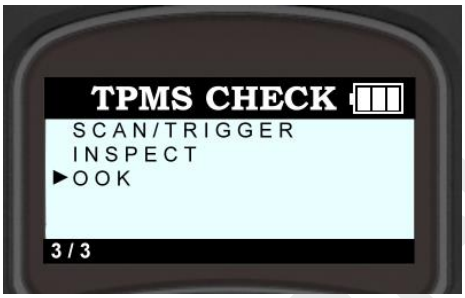
3. BLE TPMS CHECK: OOK

TT03 Screen

Press ▲ or ▼ to make the cursor move to "BLE TPMS CHECK" , then press OK to enter the "BLE TPMS CHECK" screen.

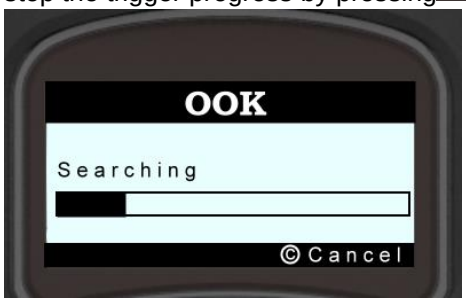


Press ▲ or ▼ to make the cursor move to "OOK" , then press OK to enter the "OOK" screen.



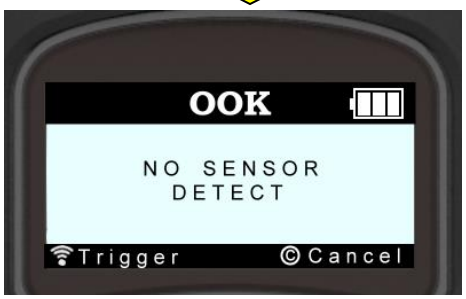
Press to trigger sensor

Start searching the sensor as below, or you can stop the trigger progress by pressing C.



Found the sensor

Fail to find the sensor



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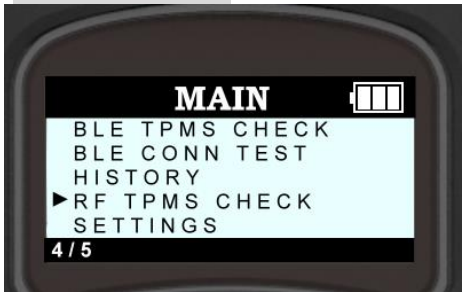
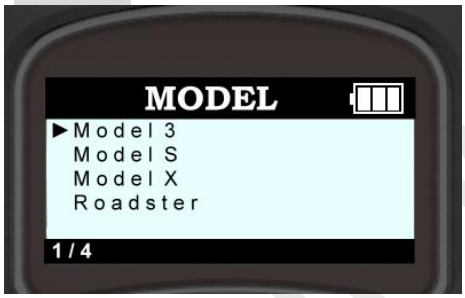
4. RF TPMS CHECK: Select the R sensor to be triggered from the MMY menu. (Example: Model 3, 2017-2020)

TT03 Screen

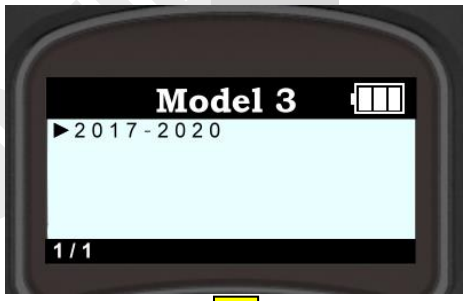
Press ▲ or ▼ to make the cursor move to "RF TPMS CHECK" , then press OK to enter the "RF TPMS CHECK" screen.



Press ▲ or ▼ to make the cursor move to "MODEL 3" , then press OK to enter the "MODEL 3" screen.

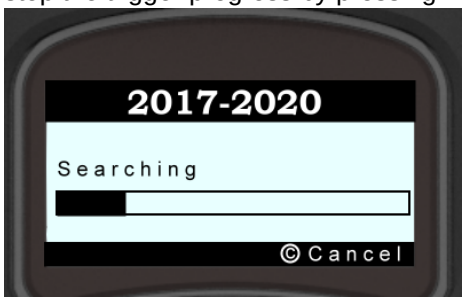


Select "2017-2020" year menu item, then press OK to enter the "2017-2020"screen.



Press to trigger sensor

Start searching the sensor as below, or you can stop the trigger progress by pressing C.



Fail to find the sensor

Found the sensor

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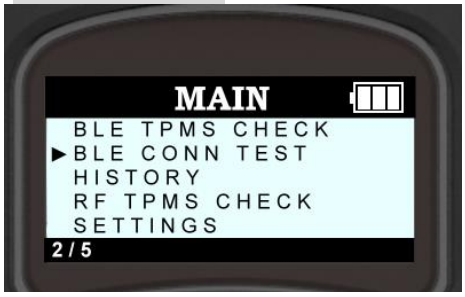
- Connect test:

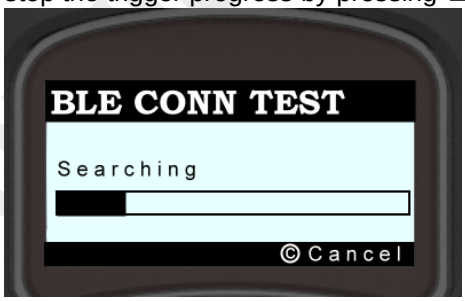
TT03 Screen

Press ▲ or ▼ to make the cursor move to "BLE CONN TEST" , then press OK to enter the "BLE CONN TEST" screen.

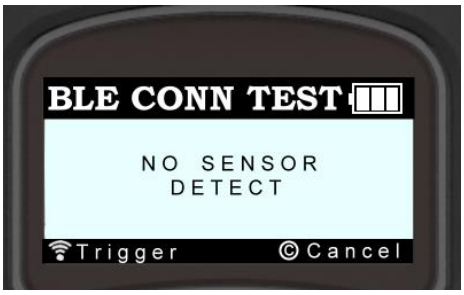


Press to trigger sensor

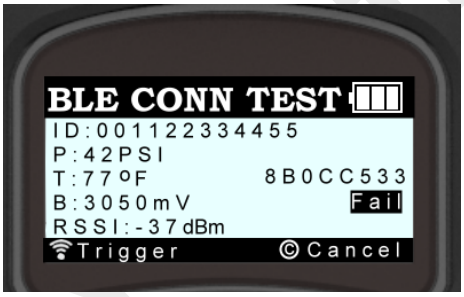
Start searching the sensor as below, or you can stop the trigger progress by pressing C.



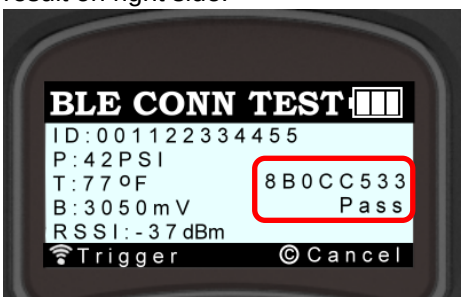
Fail to find the sensor



Connect fail



Connect pass



Display FW version and connect test result on right side.

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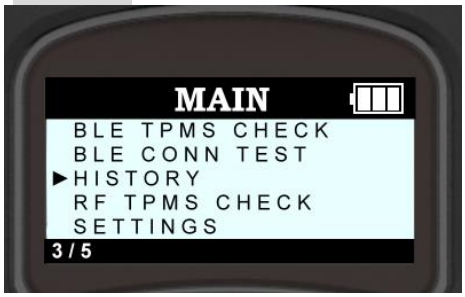
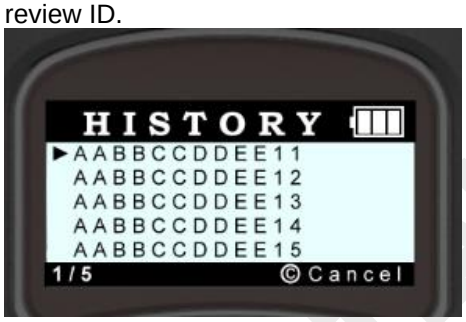
- HISTORY:

TT03 Screen

Press ▲ or ▼ to make the cursor move to "HISTORY" , then press OK to enter the "HISTORY" screen.



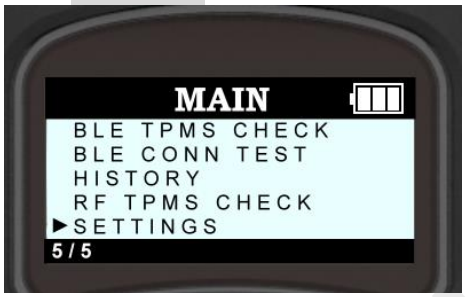
Press ▲ or ▼ to make the cursor move to review ID.



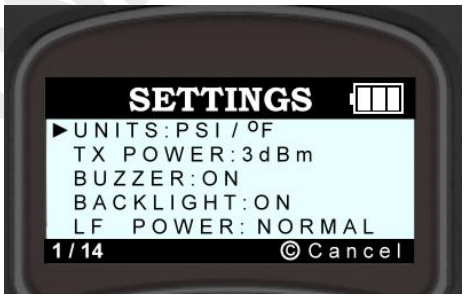
- Pressure / Temperature Units Setting:

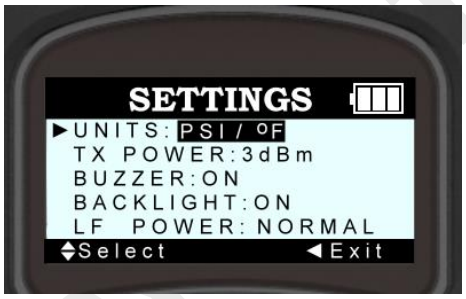
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS" , then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "UNITS" , then press ▶ to enter the "UNITS" item.





Press ▲ or ▼ to switch the following options(PSI / ºF → PSI / ºC → kPa / ºF → kPa / ºC → Bar / ºF → Bar / ºC), then press ◀ to exit the "UNITS" item.

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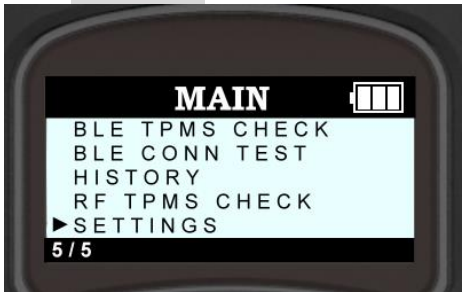
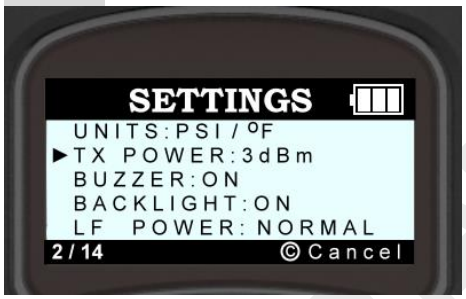
- TX power level Setting:

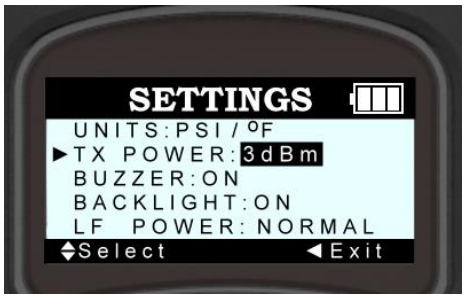
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS" , then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "TX POWER" , then press ▶ to enter the "TX POWER" item.





Press ▲ or ▼ to switch the following options(3dBm → 2dBm →1dBm → 0dBm → -1dBm → -2dBm → -3dBm → -5dBm → -9dBm → -13dBm → -17dBm → -21dBm → -25dBm → -45dBm), then press ◀ to exit the "TX POWER" item.

Note: In the TX power table above is for BLE type used, if senor type is OOK type, the options will be changed to 19dBm → 18dBm → 17dBm → 16dBm → 15dBm → 14dBm → 10dBm → 4dBm → 2dBm → 0dBm → -20dBm

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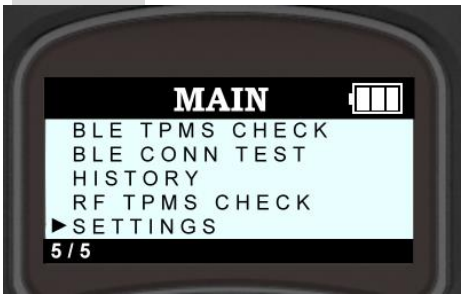
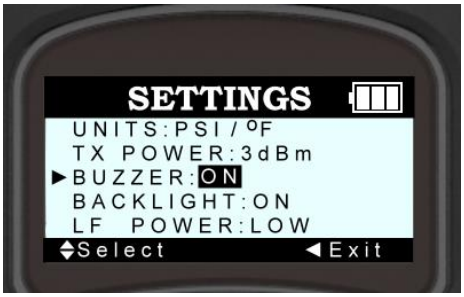
- Buzzer On/Off Setting:

TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "BUZZER" , then press ▶ to enter the "BUZZER" item.

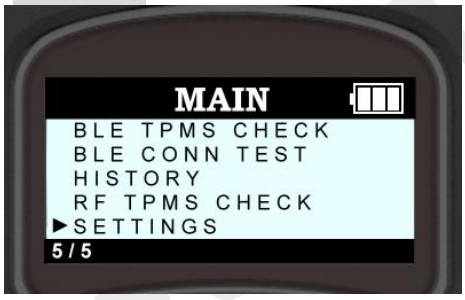


Press ▲ or ▼ to switch the following options (ON→ OFF), then press ◀ to exit the "BUZZER" item.

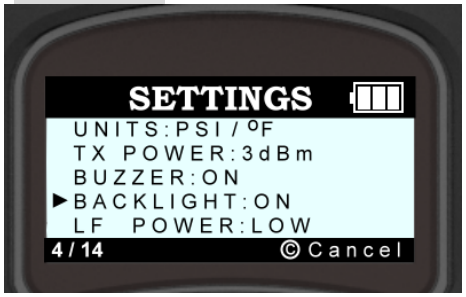
- Backlight On/Off Setting:

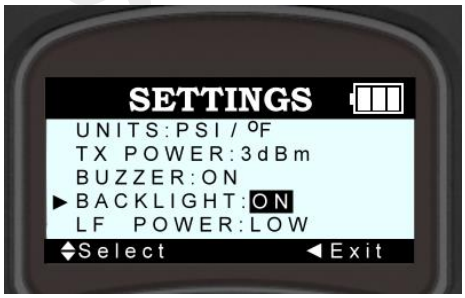
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "BACKLIGHT", then press ▶ to enter the "BACKLIGHT" item.





Press ▲ or ▼ to switch the following options (ON → OFF), then can press ◀ to exit the "BACKLIGHT" item.

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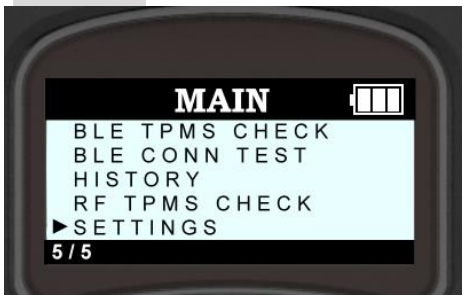
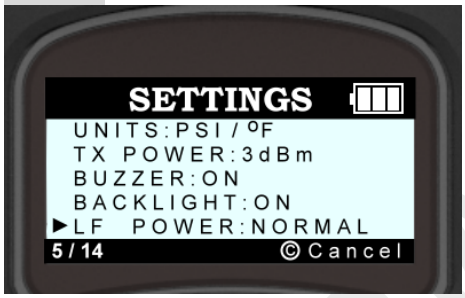
- LF Power Setting:

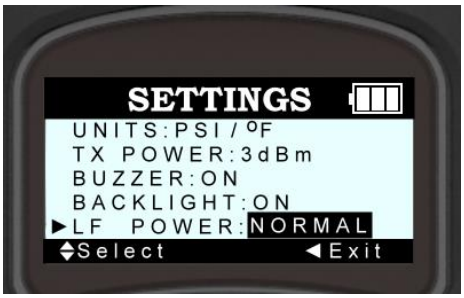
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "LF POWER" , then press ▶ to enter "LF POWER" item.





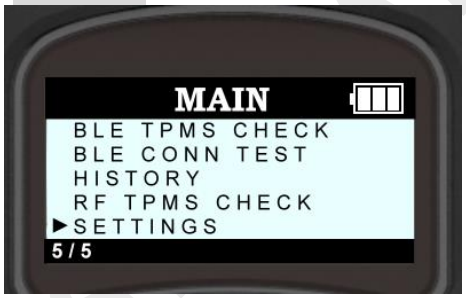
Press ▲ or ▼ to switch the following options (HIGH → NORMAL → LOW), then press ◀ to exit the "LF POWER" item.

- USB Port Working Mode Setting (USB HID/ UART):

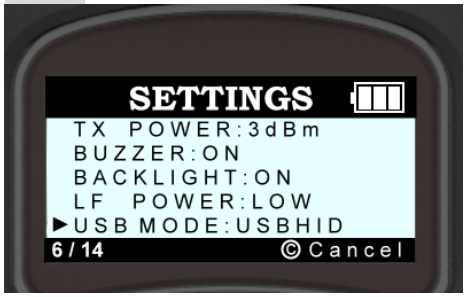
TT03 Screen

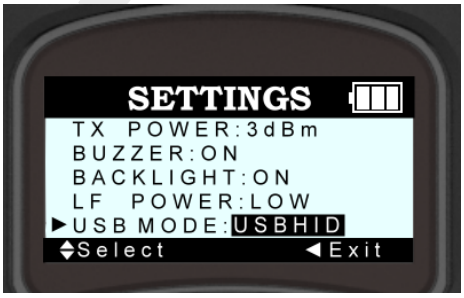
※Check if the USB is plugged out.

Press ▲ or ▼ to make the cursor move to "SETTINGS" , then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "USB MODE" , then press ▶ to enter "USB MODE" item.





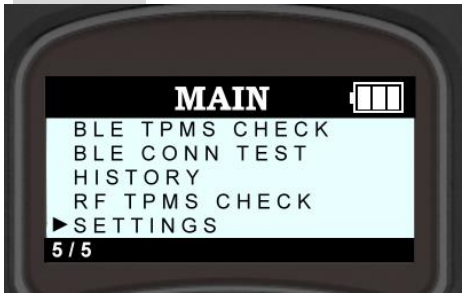
Press ▲ or ▼ to switch the following options (USBHID → UART), then press ◀ to exit the "USB MODE" item.

SYSGRATION CONFIDENTIAL

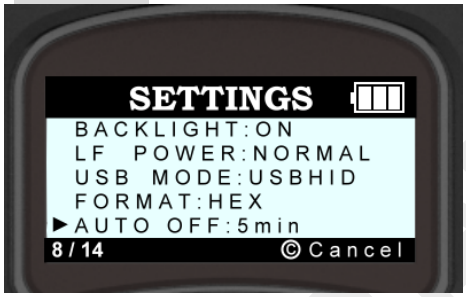
- Power OFF Time Setting:

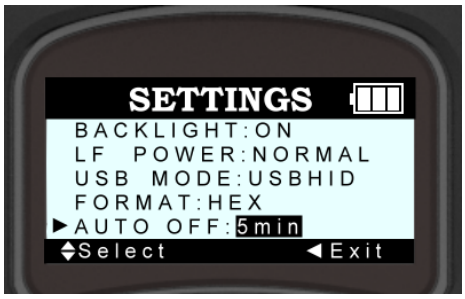
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "AUTO OFF", then press ▶ to enter the "AUTO OFF" item:



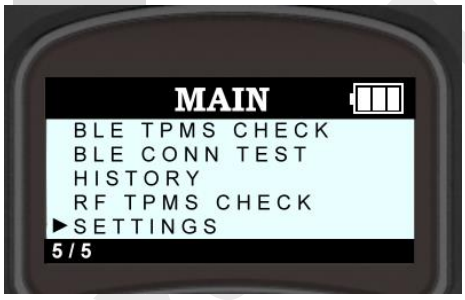


Press ▲ or ▼ to switch the following options (5 min → 3 min → 1 min → OFF), then press ◀ to exit the "AUTO OFF" item.

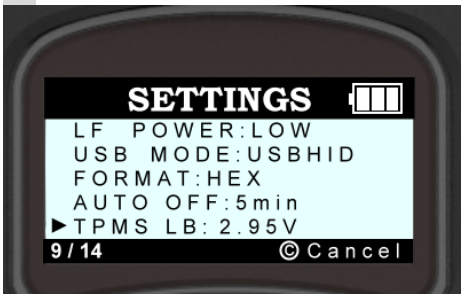
- TPMS Low Battery Alert Setting:

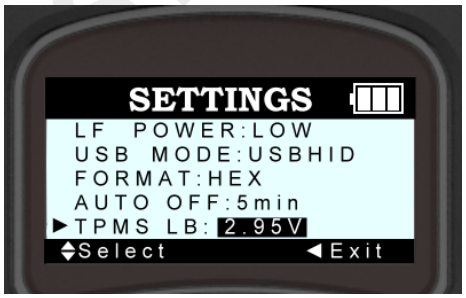
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "TPMS LB", then press ▶ to enter the "TPMS LB" item:





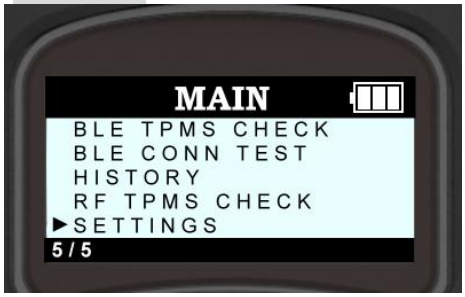
Press ▲ or ▼ to switch the following options (3.30V → 3.25V → 3.20V → 3.15V → 3.10V → 3.05V → 3.00V → 2.95V → 2.90V → 2.85V → 2.80V → 2.75V → 2.70V → 2.65V → 2.60V → 2.55V → 2.50V → 2.45V → 2.40V → 2.35V → 2.30V → OFF), then press ◀ to exit the "TPMS LB" item.

SYSGRATION CONFIDENTIAL

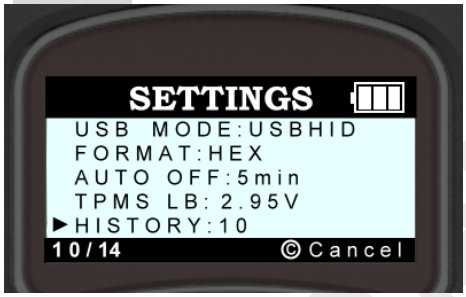
- History Setting:

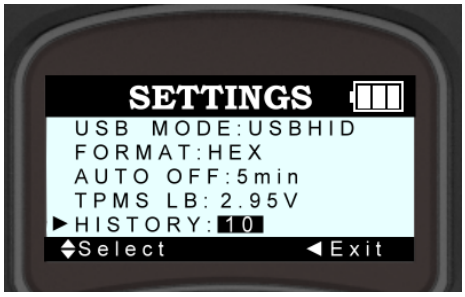
TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "HISTORY", then press ▶ to enter the "HISTORY" item:



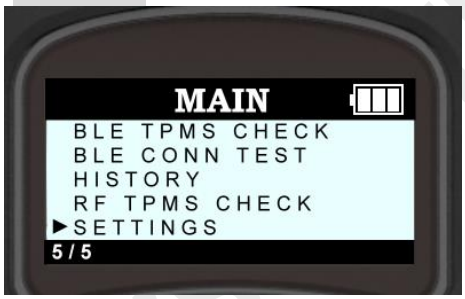


Press ▲ or ▼ to switch the following options (10 → 9 → 8 → 7 → 6 → 5 → 4 → 3 → 2 → 1), then press ◀ to exit the "HISTROY"

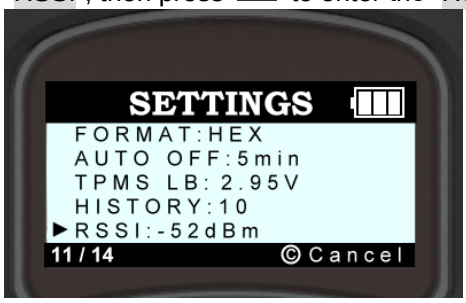
- RSSI:

TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "RSSI", then press ▶ to enter the "RSSI" item:

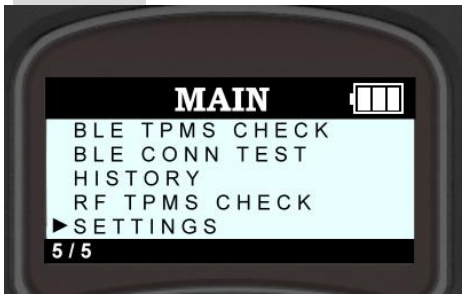


Press ▲ or ▼ to switch the following options (-30dBm ~ -99dBm), then press ◀ to exit the "RSSI" item.

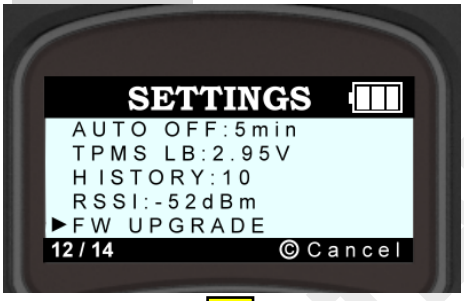
SYSGRATION CONFIDENTIAL

- FW Upgarde – Thru BLUETOOTH:

TT03 Screen
Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "FW UPGARDE", then press OK to enter the "FW UPGARDE" item.



Press ▲ or ▼ to make the cursor move to "BLUETOOTH", then press OK to enter the "BLUETOOTH" item:

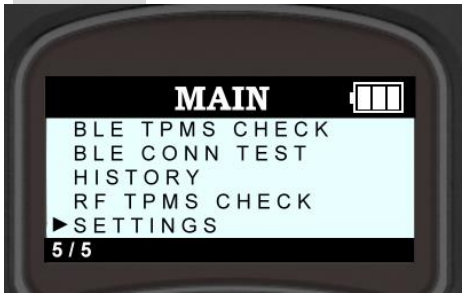
Waiting for the connection with phone APP in 30s, otherwise it will exit "BLUETOOTH" screen automatically, or you can press C to exit below screen by manual within 30s.

SYSGRATION CONFIDENTIAL

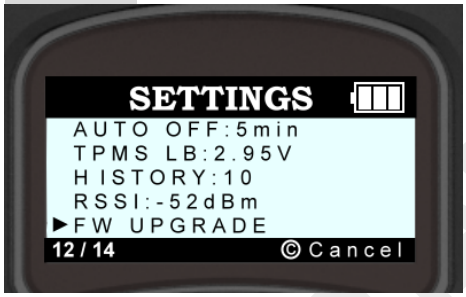
- FW Upgarde – Thru USB:

TT03 Screen

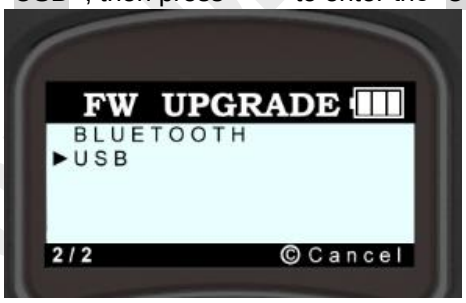
Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "FW UPGARDE", then press OK to enter "FW UPGARDE" item.



Press ▲ or ▼ to make the cursor move to "USB" , then press OK to enter the "USB" item:



With USB plugged in

If connected with USB in 30s, the screen will switch to blank status which means TT03 have gone to DFU mode, waiting for the PC to download dos command for upgrade.

Without USB plug in

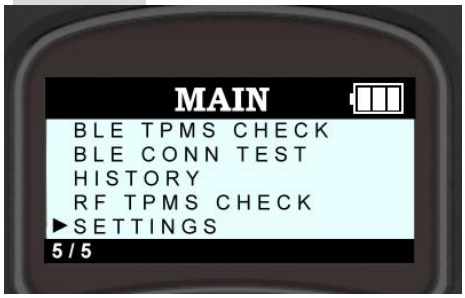
The screen as below will remind you to plug the USB in, if not plug into USB in 30s, it will exit automatically and back to "FW UPGARDE" screen.

SYSGRATION CONFIDENTIAL

- Restore:

TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.



Press ▲ or ▼ to make the cursor move to "RESTORE", then press OK to enter the "RESTORE" item:

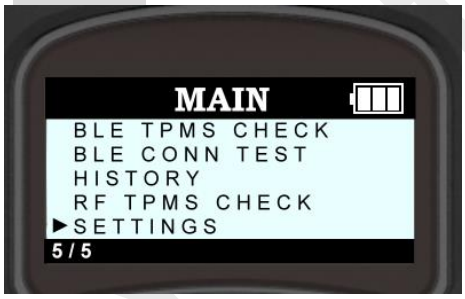
(1) Press OK to reset to the default setting then it will exit "RESTORE" screen and back to "SETTINGS" screen automatically.

(2) Press C to exit "RESTORE" screen.

- About screen:

TT03 Screen

Press ▲ or ▼ to make the cursor move to "SETTINGS", then press OK to enter the "SETTINGS" menu.

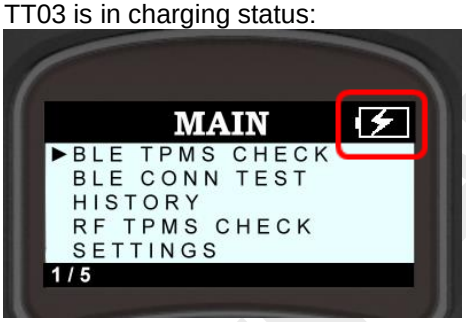


Press ▲ or ▼ to make the cursor move to "ABOUT" , then press OK to enter the "ABOUT" screen:

The screen will display below information about TT03, you can exit "ABOUT" screen by pressing C.

SYSGRATION CONFIDENTIAL

- USB Charging:

TT03 Screen
The icon in the red box as below display that TT03 is in charging status: 

SYSGRATION CONFIDENTIAL

Federal Communication Commission Interference 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.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada licence-exempt
RSS 247, RSS 210, RSS-Gen standard.
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.

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.

SYSGRATION CONFIDENTIAL