

i-TPMS X431 Handheld TPMS Service Tool



i-TPMS X431 Handheld TPMS Service Tool User Manual

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i-TPMS

i-TPMS X431 Handheld TPMS Service Tool



Specifications

- Screen: 1.77 inch
- Input voltage: DC 5V
- Size: 205*57*25.5mm
- Working Temperature: -10oC~50oC
- Storage Temperature: -20oC~60oC

Product Information

i-TPMS is a professional TPMS (Tire Pressure Monitoring System) service tool. It can work with a specific diagnostic tool or smartphone loaded with the iTPMS app to perform various TPMS functions.

Safety Precautions

- Read all safety warnings and instructions.
- Do not disassemble the device as it will void the warranty right.
- Avoid exposing the device to rain or wet conditions.
- Handle with care and do not leave unattended during charging.
- Do not operate in explosive atmospheres.
- Clean the device with a mild detergent when necessary.

Components & Controls

- Charging LED: Red for Charging, Green for Fully Charged
- UP Button
- DOWN Button
- Charging Port
- Sensor Slot: Insert sensor here to activate and program it
- Display Screen
- POWER Button: Turn on/off the tool
- OK (Confirm) Button

Product Usage Instructions

1. Ensure the device is charged before use.
2. Insert the sensor into the designated slot to activate and program it.
3. Use the UP and DOWN buttons to navigate through the tool's functions.
4. Press the OK button to confirm selections.
5. Follow the specific diagnostic tool or smartphone instructions for advanced functions.

FAQ

- **Q: Can this device be used without a specific diagnostic tool or smartphone?**

A: No, i-TPMS is designed to work with a specific diagnostic tool or smartphone loaded with the iTPMS app for full functionality.

- **Q: What should I do if the device is dropped?**

A: Check for breakage and any other damage that may affect operation. Do not use if damaged.

- **Q: How should I clean the device?**

A: Use a mild detergent on a clean cloth to wipe the outside of the device when necessary. Do not use harsh chemicals or immerse in water.

User Manual



Note: Pictures illustrated here are for reference purpose only. Due to continuing improvements, actual product may differ slightly from the product described herein and this User Manual is subject to change without notice.

Safety Precautions

Read all safety warnings and instructions. Failure to heed these warnings and instructions may result in electric shock, fire and/or serious injury.

Save all safety warnings and instructions for future reference.

- There are no user serviceable parts. Have the device serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the device is maintained. Disassembling the device will void the warranty right.
- **CAUTION:** This device contains an internal Lithium Polymer battery. The battery can burst or explode, releasing hazardous chemicals. To reduce the risk of fire or burns, do not disassemble, crush, pierce or dispose of the battery in fire or water.
- This product is not a toy. Do not allow children to play with or near this item.
- Do not expose the device to rain or wet conditions.
- Do not place the device on any unstable surface.
- Never leave the device unattended during charging process. The device must be placed on a non-flammable surface during charging.
- Handle the device with care. If the device is dropped, check for breakage and any other conditions that may affect its operation.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.
- Keep the device dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the device when necessary.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- Use the device only with the specific diagnostic tool that comes loaded with the TPMS module and the Android smartphone that is installed with i-TPMS app.
- Do not install programmed TPMS sensors in damaged wheels.
- While programming a sensor, do not place the device close to several sensors at the same time, which may result in programming failure.
- The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

FCC Statement

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

Components & Controls

i-TPMS is a professional TPMS (Tire Pressure Monitoring System) service tool. It can work with the specific diagnostic tool or smartphone (needs to be loaded with i-TPMS app) to perform various TPMS functions.

1. Charging LED

Red means Charging; Green means Fully Charged.

2. UP Button

3. DOWN Button

4. Charging Port

5. Sensor Slot

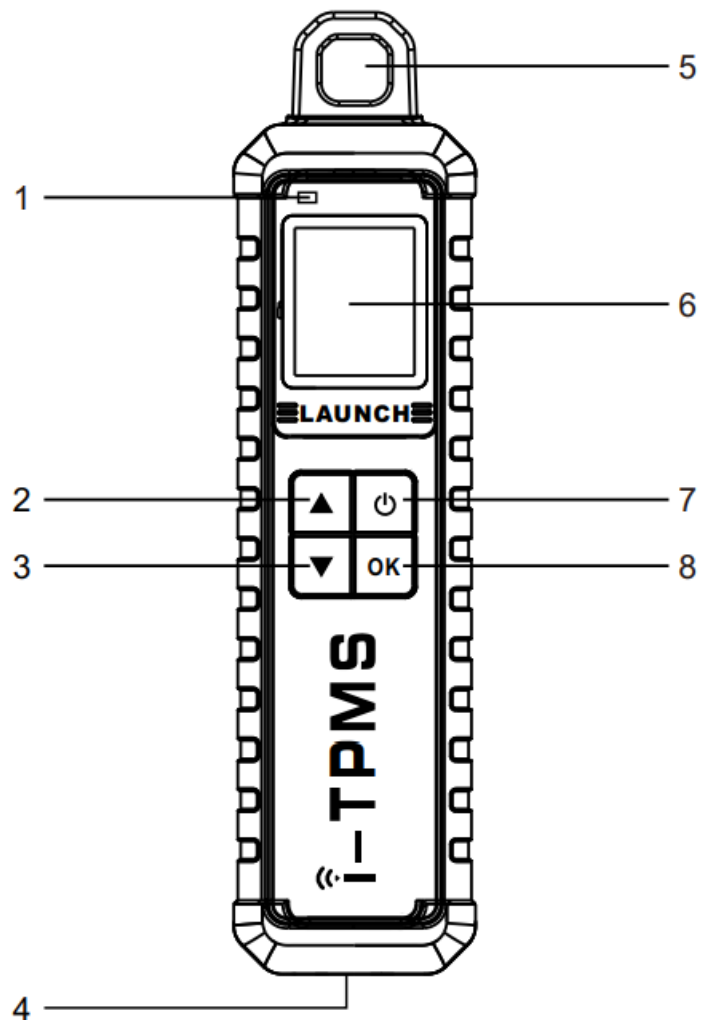
Insert the sensor into this slot to activate and program it.

6. Display Screen

7. POWER Button

Turn on/off the tool.

8. OK (Confirm) Button

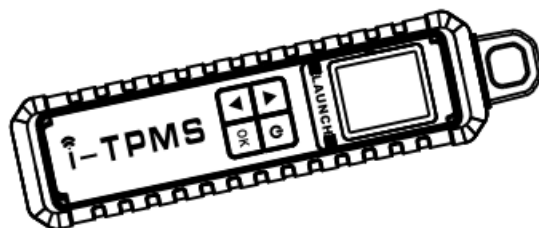


Technical Parameters

- Screen: 1.77 inch
- Input voltage: DC 5V
- Size: 205*57*25.5mm
- Working Temperature: -10oC~50oC
- Storage Temperature: -20oC~60oC

Accessory Included

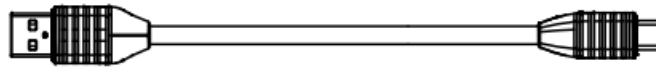
While opening the package for the first time, please carefully check the following components. Common accessories are same, but for different destinations, the accessories may vary. Please consult from the seller.



i-TPMS Device

Charging Cable

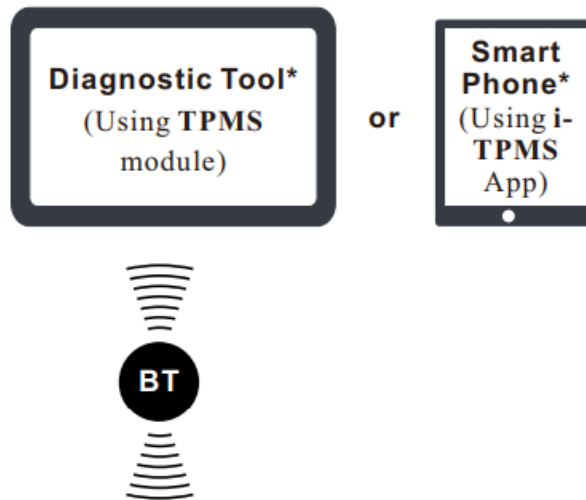
(For charging the i-TPMS device.)



User Manual

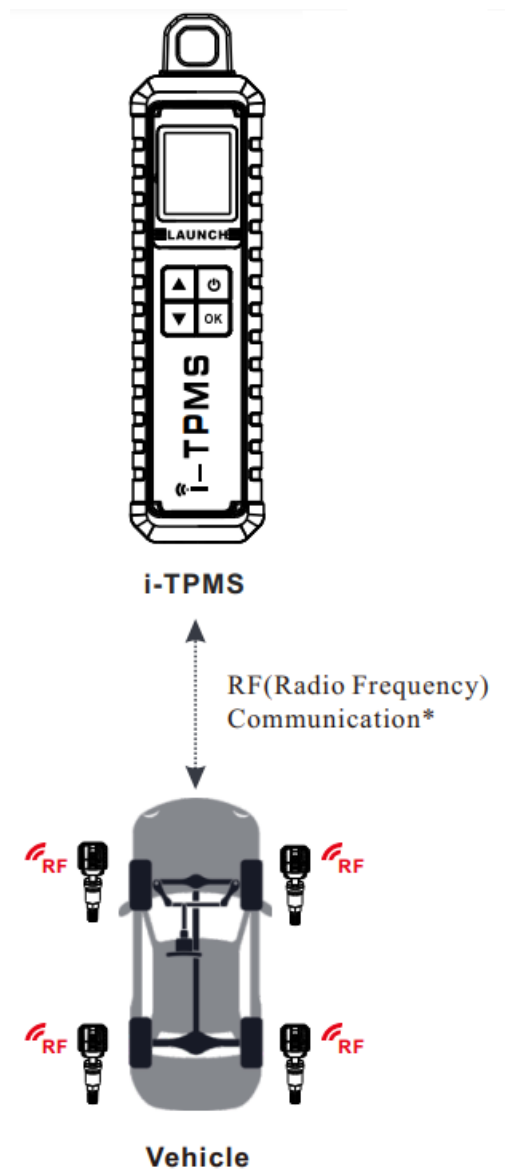
Working Principle

Below illustrates how the i-TPMS works with the specific diagnostic tool and smarthone.



Notes

- The diagnostic tool must be specific scanner loaded with the TPMS module.
- Due to hardware limitation, The i-TPMS app on the smartphone achieves less functions than the TPMS module on the specific diagnostic tool.
- A stable wireless communication should be established between the i-TPMS and diagnostic tool or smartphone.



Initial Use

Charging & Powering On

Plug one end of the charging cable into the charging port of the i-TPMS, and the other end to an external power adaptor (not included), then connect the power adaptor to the AC outlet. While being charged, the LED illuminates red. Once the LED changes into green, it indicates the charging is complete.

Press the POWER button to turn it on. A beep will sound and the screen will light up.

Button Operations

▲/▼ Switches to different tire positions.

⏻ Press it for about 3 seconds to turn it on/off.

- Screen On: Press it once to enter hibernate mode.
- If the device is not charged and there is no operation made for 30 minutes, it will automatically power off.
- If the device is charging and there is no operation made for 5 minutes, it will automatically enter hibernate mode to conserve battery power.
- Screen Off (hibernate): Press it once to wake it up.

OK Press it to confirm the current operation.

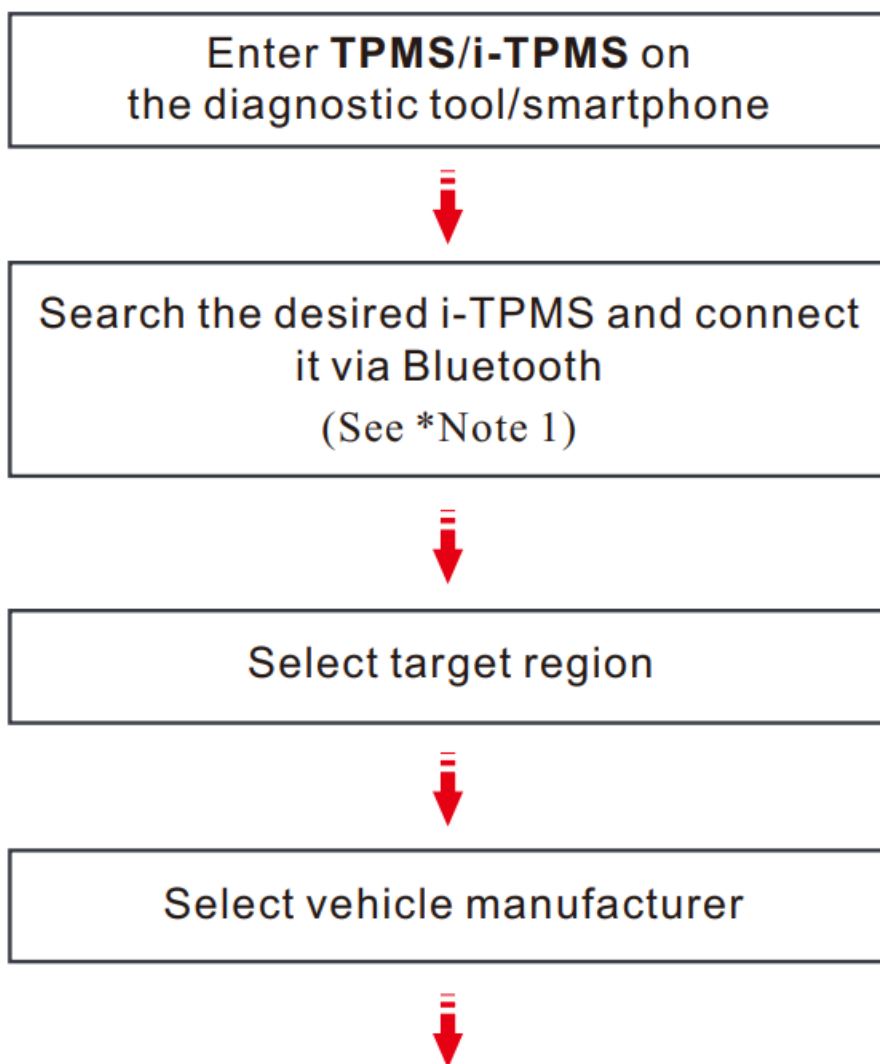
i-TPMS App Download (Only for Android Smartphone users)

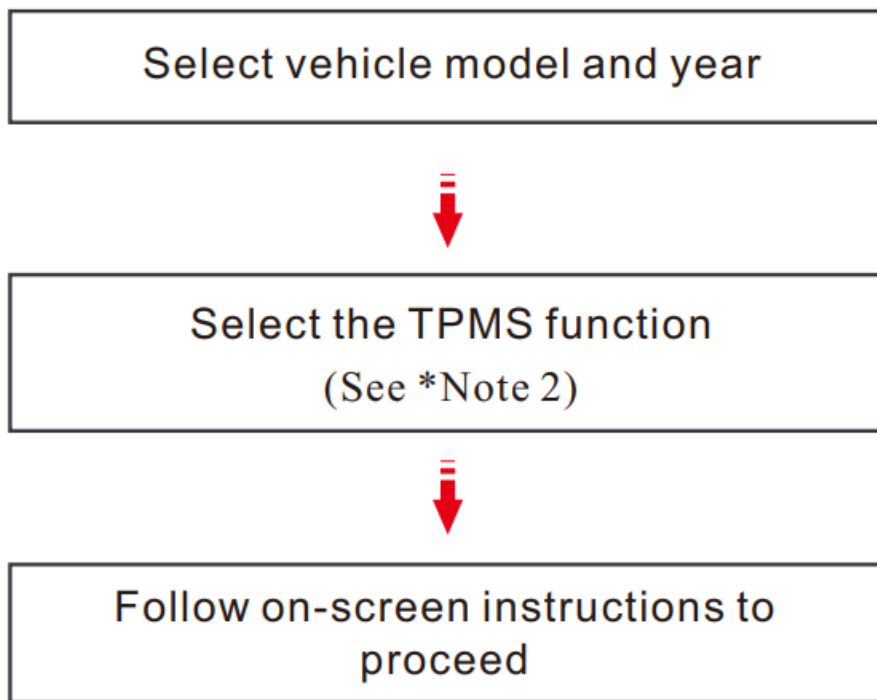
For Android system smartphone user, scan the following QR code or the QR code on the back of the i-TPMS device to download and install the i-TPMS app on the phone.



Getting Started

For initial use, please follow the flow chart below to start using it.





Notes

1. When scanning available i-TPMS device, make sure it has been powered on. After searching, tap it to pair up via Bluetooth. If the firmware version of the i-TPMS is too low, the system will automatically upgrade it.
2. For indirect TPMS vehicle, only the Learning function is supported. For vehicle using Direct TPMS, it generally includes: Activation, Programming, Learning and Diagnosis. The available TPMS functions may vary for different vehicles being serviced and TPMS apps being used.

Job Menu

This section only applies to the Android smartphone user using the i-TPMS app.
Open the i-TPMS app, the following screen will appear:

- **A. Display mode switch button**

Tap to switch to different display mode.

- **B. Settings button**

Tap to enter the settings screen.

- **C. Bluetooth pairing button**

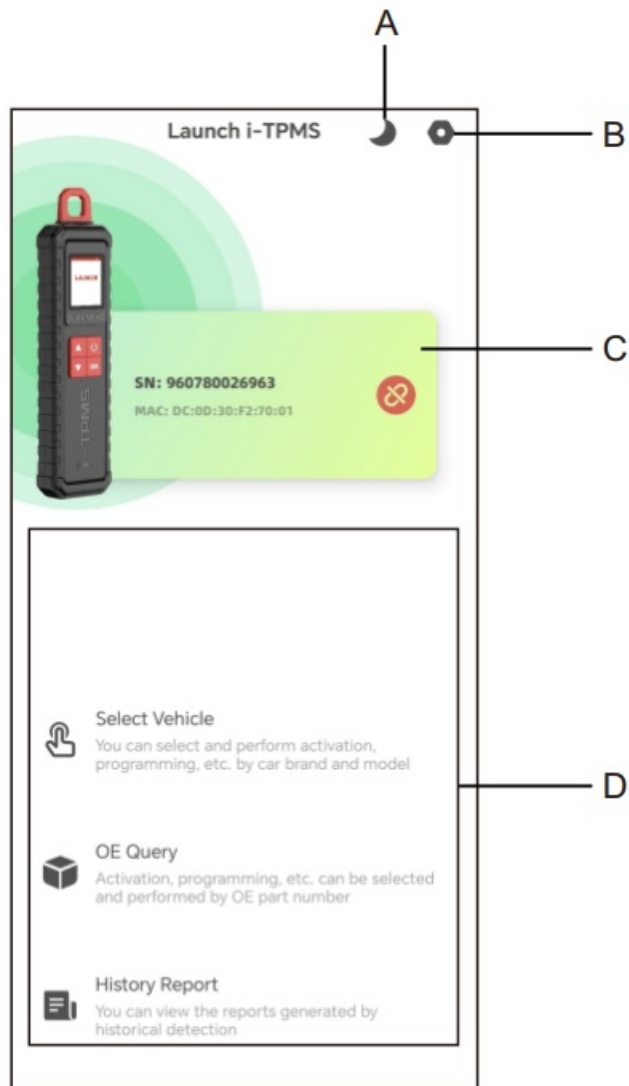
Tap to scan for available bluetooth devices and pair it up. After paired, an link icon will appear on the screen.

- **D. Function module**

Select Vehicle – Tap to select the desired vehicle manufacturer.

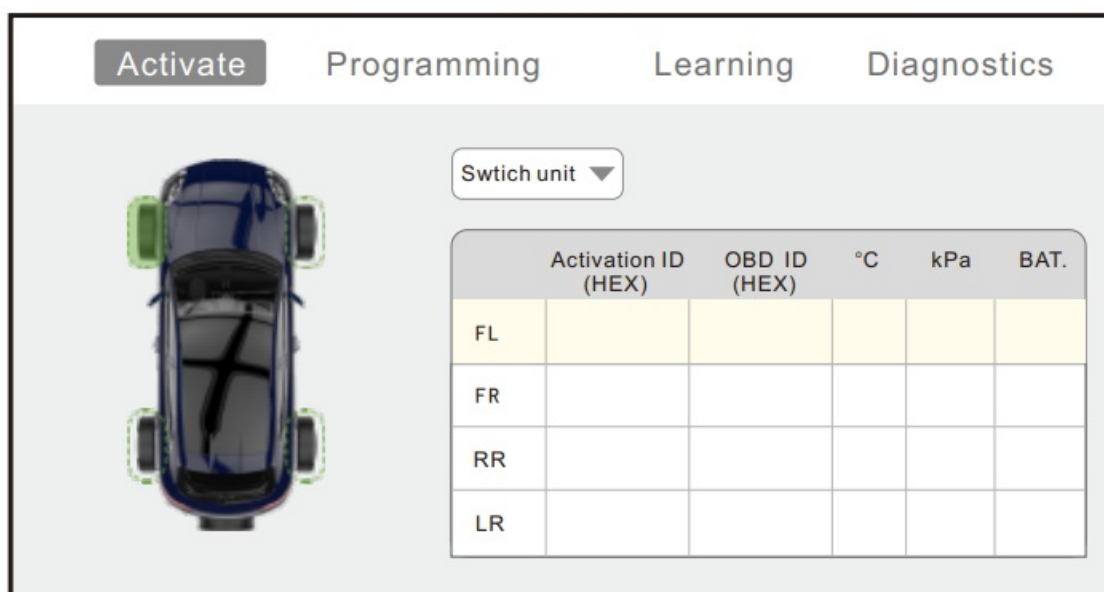
OE Query – Tap to check the OE number of the sensors.

History Report – Tap to view the historical reports TPMS test report.



TPMS Operations

Here we take diagnostic tool for example to demonstrate how to perform TPMS operations since the TPMS module of diagnostic tool covers all TPMS functions on the i-TPMS app on the smartphone.



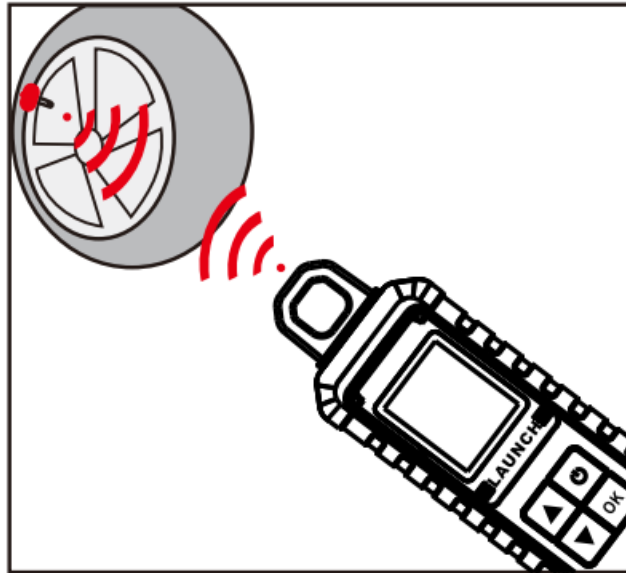
1. Activate Sensor

This function allows users to activate TPMS sensor to view sensor data such as sensor ID, tire pressure, tire

frequency, tire temperature and battery condition.

Note: The tool will do TPMS test in a sequence of FL (Front Left), FR (Front Right), RR (Rear Right), LR (Rear Left) and SPARE, if the vehicle has the option for the spare. Or, you can use the ▲/▼ button to move to the desired wheel for testing.

For universal sensors, place the i-TPMS alongside the valve stem, point toward the sensor location, and press the OK button. Once the sensor is successfully activated and decoded, i-TPMS will vibrate slightly and the screen will display the sensor data.



Notes

- For early magnet-activated sensors, place the magnet over the stem and then place the i-TPMS alongside the valve stem.
- If the TPMS sensor requires tire deflation (of the order of 10PSI), then deflate the tire and place the i-TPMS alongside the stem while pressing the OK button.

TPMS Operations


Program Sensor

This function allows users to program the sensor data to the specific brand sensor and replace faulty sensor with low battery life or one that is not functioning.

There are four options available for programming the sensor: Auto Create, Manual Create, Copy by Activation and Copy by OBD.

Note: Do not place the device close to several sensors at the same time, which may result in programming failure.

Activate
Programming
Learning
Diagnostics



Switch unit ▼

	Activation ID (HEX)	OBD ID (HEX)	°C	kPa	BAT.
FL					
FR					
RR					
LR					

Auto
Manual
Copy by Ac
Copy by OB
Read ECU

Method 1- Auto Create

This function is designed to program the specific brand sensor by applying random IDs created according to the test vehicle when it is unable to obtain the original sensor ID.

1. Select the wheel which needs to be programmed on the screen, insert a sensor into the sensor slot of the i-TPMS, and tap Auto to create a new random sensor ID.

Programme

Currently created ID : 0x1234567A

Back

Program

2. Tap Program to write in the new created sensor ID to the sensor.

Note: If Auto is selected, the TPMS Relearn operation needs to be performed after programming all required sensor.

Method 2 – Manual Create

This function allows users to manually enter sensor ID. Users can enter the random ID or the original sensor ID, if it is available.

1. Select the wheel to be programmed on the screen, insert a sensor into the sensor slot of the i-TPMS, and tap Manual.
2. Use the on-screen virtual keypad to input a random or original (if available) sensor ID and tap OK.

Note: Do not enter the same ID for each sensor.
3. Follow the on-screen prompts to write in the sensor ID to the sensor.

Notes

- If a random ID is entered, please perform the TPMS Relearn function after programming is finished. If the original ID is entered, there is no need to perform Relearn function.
- If a vehicle does not support Learn function, please select Manual to enter the original sensor ID manually, or trigger the original sensor at the activation screen to get its information, before programming the sensor.

Method 3 – Copy By Activation

This function allows users to write in the retrieved original sensor data to the specific brand sensor. It is used after the original sensor is triggered.

1. From the activation screen, select the specific wheel position and trigger the original sensor. After the information is retrieved, it will be displayed on the screen.
2. Insert a sensor into the sensor slot of the i- TPMS, and tap Copy by activation.
3. Tap Program to write in the copied sensor data to the sensor.

Note: Once programmed with Copy, the sensor can be installed in the wheel directly to be mounted on the vehicle and the TPMS warning light will turn off.

Method 4 – Copy By OBD

This function allows users to write in the saved sensor information to the LAUNCH sensor after performing Read ECU ID. This function requires a connection with the vehicle's DLC port.

1. Connect the tool to the vehicle's DLC port, tap Read ECU ID to start reading the sensor IDs and positions for viewing.
2. Insert a new sensor into the sensor slot of the i-TPMS, select the desired wheel position and tap Copy by OBD.
3. Tap Program to write in the copied sensor data to the sensor.

Relearning (Only available on diagnostic tool)

This function is used to write the newly programmed sensor IDs into the vehicle's ECU for sensor recognition. Relearn operation applies only when the newly programmed sensor IDs are different from the original sensor IDs stored in the vehicle's ECU.

There are three ways available for Relearn: Static Learning, Self-Learning and Relearn by OBD.

• Method 1 – Static Learning

Static learning requires the vehicle to be put into learning / retraining mode, and then follow the on-screen prompts to complete it.

• Method 2 – Self-Learning

For some vehicles, the learning function can be completed by driving. Refer to the on-screen learning steps to do the operation.

• Method 3 – Relearn by OBD

This function allows the diagnostic tool to write the sensor IDs to the TPMS module.

To perform relearn by OBD, firstly activate all sensors, and then use the diagnostic tool together with the included VCI to complete the learning steps following the on-screen instructions.

Troubleshooting

Below lists some frequently asked questions of the i-TPMS.

- **Q: Why does my i-TPMS always stay on welcome screen?**

A: If the device keeps displaying the welcome screen, it indicates that it is not in TPMS function mode. If the diagnostic tool is performing the TPMS function, the device will switch to the corresponding function mode.

- **Q: Can I set the system language of my i-TPMS ?**

A: It varies with the system language of the diagnostic tool/smartphone that connects it. Currently only English and simplified Chinese are available on the device.

If the device detects the system language of the diagnostic tool/smartphone is non-Chinese, it will change into English automatically no matter which language the diagnostic tool/smartphone is set as.

- **Q: My i-TPMS does not respond.**

A: In this case, please carefully check the following:

- Whether the device is successfully connected to the diagnostic tool/smartphone wirelessly.
- Whether the device is powered on.
- Whether the device is damaged or defective.

- **Q: Why does my i-TPMS automatically power off?**

A: Please check the following:

- Whether the device is fully discharged.
- If the device is not being charged and there is no operation on the device for 30 minutes, it will automatically power off to conserve battery power.

- **Q: My i-TPMS can not trigger sensor.**

A: Please check the following:

- Whether the device is damaged or defective.
- Whether the sensor, module or ECU itself may be damaged or defective.
- 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.
- Your device may require a firmware upgrade.

- **Q: What to do if my i-TPMS encountered some unexpected bugs?**

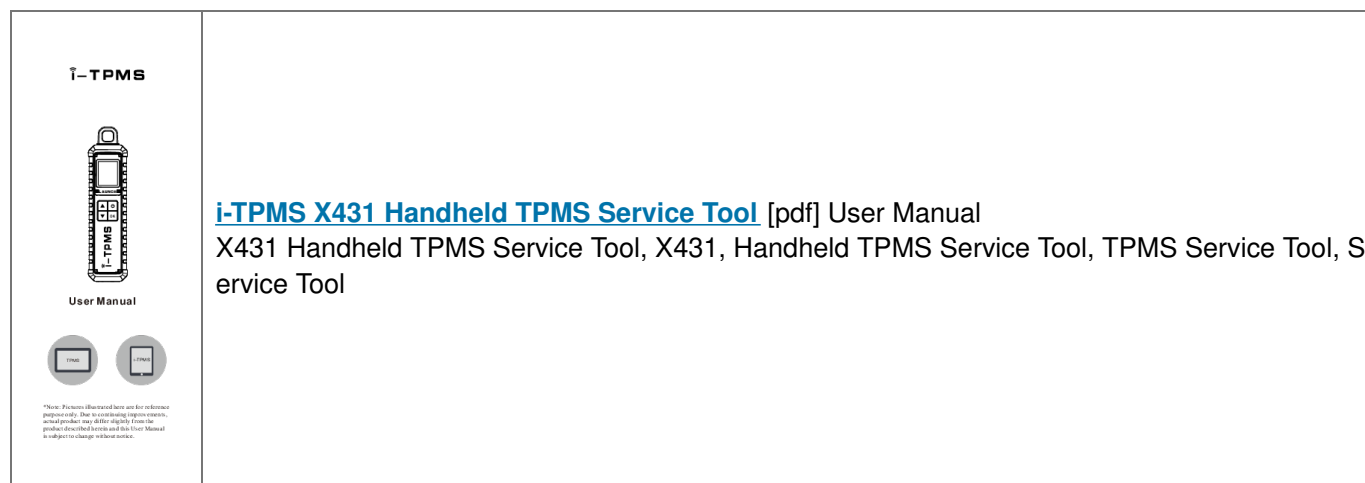
A: In this case, a firmware upgrade is required. On the TPMS version selection screen, tap Firmware Update to upgrade it.

Note: Pictures illustrated here are for reference purpose only. Due to continuing improvements, actual product may differ slightly from the product described herein and this User Manual is subject to change without notice.

Dimension

- 210mm
 - 78mm
-

Documents / Resources



References

- User Manual

Manuals+, Privacy Policy

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