X-431 TSGUN

TPMS Wand



User Manual

*Note: Pictures illustrated herein 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.

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Statement: LAUNCH owns the complete intellectual property rights for the software used by this product. For any reverse engineering or cracking actions against the software, LAUNCH will block the use of this product and reserve the right to pursue their legal liabilities.

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 my 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 Launch-specific diagnostic tool that comes loaded with the TPMS module.
- 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, or the diagnostic tool will detect more sensors, 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

FCC Warning

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.

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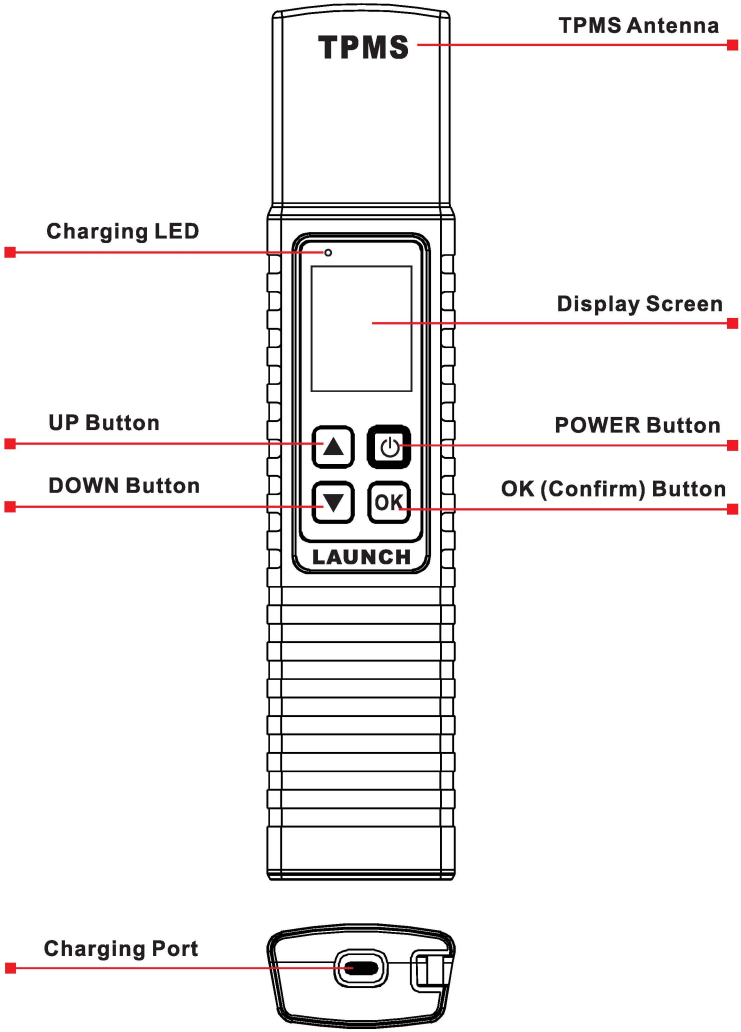
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X-431 TSGUN Profile

X-431 TSGUN is a professional TPMS (Tire Pressure Monitoring System) service tool. It provides the ability to activate tire pressure information by receiving signals via radio frequency. It needs to work with the Launch-specific diagnostic tool to perform the TPMS sensor activation, programming and learning functions.



Technical Parameters

Screen	1.77 inch
Input voltage	DC 5V
Working current	200mA
Size	252*54*30mm
Working Temperature	-10℃~50℃
Storage Temperature	-20℃~60℃

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 local agency.



X-431 TSGUN TPMS Wand



Charging Cable

(For charging the X-431 TSGUN.)



Password Envelope

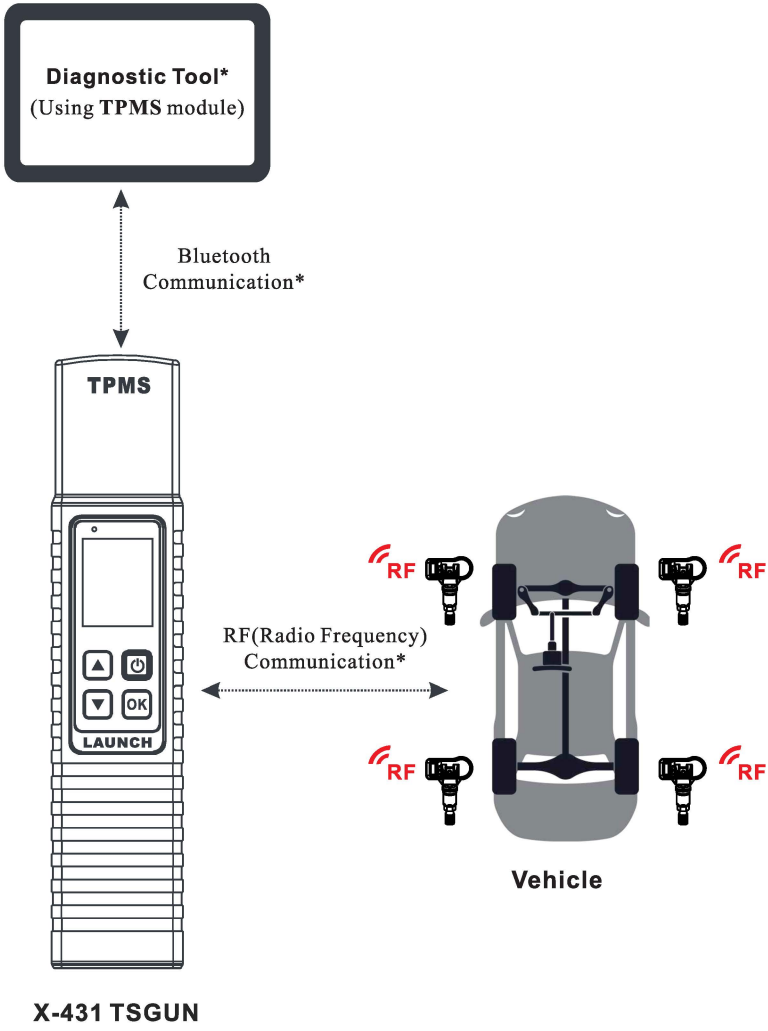
(A piece of paper with Serial Number and Activation Code, which is required when binding the X-431 TSGUN to Diagnostic Tool.)



User Manual

Working Principle

Below illustrates how the X-431 TSGUN works with the Launch-specific diagnostic tool.



X-431 TSGUN

*** Notes:**

- The diagnostic tool must be Launch-specific scanner loaded with the TPMS module.
- A stable communication should be established between the X-431 TSGUN and diagnostic tool.
- The available TPMS functions may vary with different vehicles.
- When activating some special TPMS sensors, different methods may apply.

Compatible Product List

X-431 TSGUN can work with any one of the following diagnostic tools of LAUNCH family:

PRO Series:

X-431 PRO / X-431 PRO3 / X-431 PRO5 / X-431 PRO MINI

PAD Series:

X-431 PAD III / X-431 PAD V

*Note: Due to continuing improvement, more products will be covered to support this feature. We reserve the right to make changes on the above list at any time without prior notice.

Initial Use

Charging

Plug one end of the charging cable into the charging port of the X-431 TSGUN, 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.

Powering On/Off

Press the ⏻ button for about 3 seconds to turn it on. A beep will sound and the screen will light up.
Press the ⏻ button for about 3 seconds to turn it off.

Basic 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.

Binding / Unbinding X-431 TSGUN

Binding

For initial use, user needs to bind the X-431 TSGUN to the diagnostic tool.

1. Tap **TPMS** on the Job menu of the diagnostic tool.
2. Tap **Bind X-431 TSGUN** to enter.
3. Tap **Bind**, the following screen will pop up.



*Note: Serial Number is a 12-digit number starting with 90002 - you can find it on the back of the tool/from the password envelope. Activation Code is a 8-digit number stored in the password envelope included with the device.

4. Enter the required information. After inputting, tap **Bind**. It will be displayed in the Bound list automatically .

Repeat steps 3~4 to bind multiple X-431 TSGUN devices to the diagnostic tool.

Unbinding

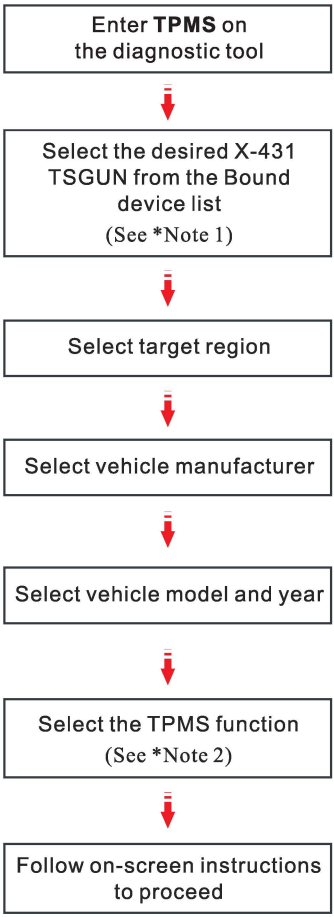
This function enables you to unbind the X-431 TSGUN and use it on other diagnostic tools.

Follow the steps below to proceed:

1. Tap **TPMS** on the Job menu of the diagnostic tool.
2. Tap **Bind X-431 TSGUN** to enter.
3. Tap **UNBIND**, and then tap **YES** in the pop-up dialog box. It will disappear from the Bound list.

Getting Started

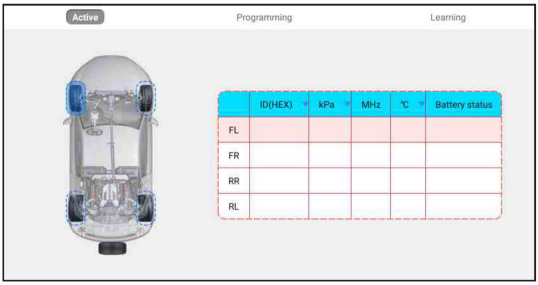
For initial use, please follow the flow chart below to start using it.



*Notes:

1. This step shall apply when multiple X-431 TSGUN devices are bound to the diagnostic tool. If only one X-431 TSGUN is bound to the diagnostic tool, keep the device ON and tap **OK** to ignore this step. If it is your first time using the X-431 TSGUN, please bind it before doing any TPMS operations. For binding procedures, please refer to Section **Binding/Unbinding X-431 TSGUN**.
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.

TPMS Operations

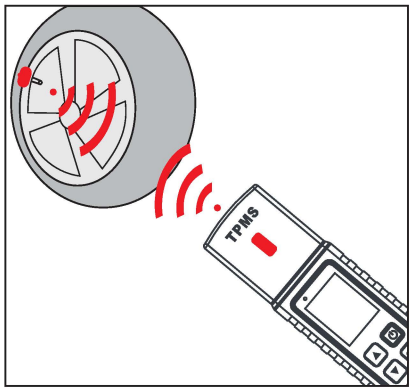


1. Activate Sensor

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 X-431 TSGUN alongside the valve stem, point toward the sensor location, and press the **OK** button. Once the sensor is successfully activated and decoded, X-431 TSGUN 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 X-431 TSGUN alongside the valve stem.
- If the TPMS sensor requires tire deflation (of the order of 10PSI), then deflate the tire and place the X-431 TSGUN alongside the stem while pressing the OK button.

2. Program Sensor

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

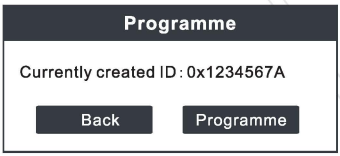
There are three options available for programming LAUNCH-sensor: Auto Create, Manual Create and Copy by Activation.

*Note: Do not place the device close to several sensors at the same time, or the diagnostic tool will detect more sensors, which may result in programming failure.

Method 1- Auto Create

This function is designed to program the LAUNCH-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 diagnostic tool, place a LAUNCH-sensor close to the TPMS antenna of the X-431 TSGUN, and tap **Auto** to create a new random sensor ID.



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

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

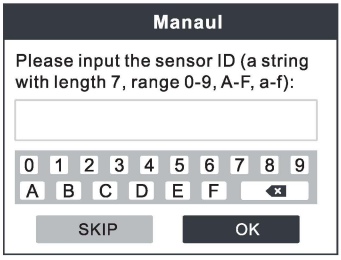
Method 2 - Manual Create

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 which needs to be programmed on the diagnostic tool, place a LAUNCH-sensor close to the TPMS antenna of the X-431 TSGUN, 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.

2. Program Sensor (Continued)



3. Follow the on-screen prompts to write in the sensor ID to the LAUNCH-sensor.

*Notes:

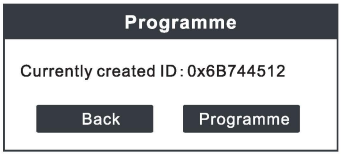
☑ If a random ID is entered, please perform the TPMS Relearn function after programming is finished. If the original ID is entered, there is no need to perform Relearn function.

☑ If a vehicle does not support Learn function, please select the **Manual** option to enter the original sensor ID manually, or trigger the original sensor at the activation screen to get its information, before programming the LAUNCH-sensor.

Method 3 - Copy By Activation

This function allows users to write in the retrieved original sensor data to the LAUNCH-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. Place a LAUNCH-sensor close to the TPMS antenna of the X-431 TSGUN, and tap **Replication (Copy by activation)**.



3. Tap **Programme** to write in the copied sensor data to the LAUNCH-sensor.

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

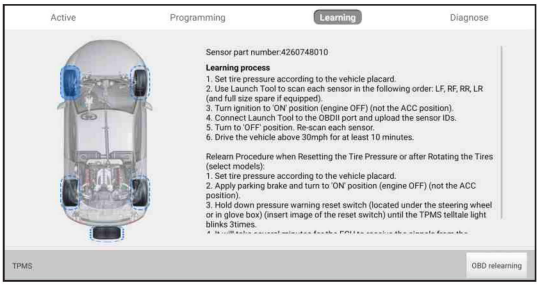
TPMS Operations

3. TPMS Relearn

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 X-431 TSGUN.

Q: Why does my X-431 TSGUN 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: Why is my X-431 TSGUN always displayed in English even the system language of my diagnostic tool is set as non-English?

A: The system language of the device varies with the system language of the diagnostic tool that binds it. Currently only English and simplified Chinese are available on the device.

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

Q: My X-431 TSGUN does not respond to the diagnostic tool.

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

- Whether the device is successfully bound to the diagnostic tool.
- Whether the desired device is ticked in the Bound list.
- Whether the device is powered on.
- Whether the device is damaged or defective.

Q: Why does my X-431 TSGUN 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 X-431 TSGUN can not trigger one or more of sensors.

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.
- You device may require a firmware upgrade.

Q: What to do if my X-431 TSGUN 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.

Warranty

Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

Disclaimer

The above warranty is in lieu of any other warranty, expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

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THANK YOU FOR CHOOSING LAUNCH!