LAUNCH Launch X-431 TSGUN

LAUNCH X-431 i-TPMS TSGUN User Manual

Tire Pressure Detector Tool: Relearn, Reset, and Coding TPMS Sensors

1. PRODUCT OVERVIEW

The LAUNCH X-431 i-TPMS TSGUN is an advanced, app-based tire pressure monitoring system (TPMS) tool designed to assist automotive professionals and enthusiasts in managing vehicle tire pressure sensors. This device integrates essential TPMS functions including sensor activation, data reading, system relearning, and sensor programming, ensuring optimal tire performance and safety.

It is engineered to work seamlessly with LAUNCH X-431 series diagnostic tablets (8 inches or above) and the dedicated i-TPMS mobile application for Android devices, providing a comprehensive solution for TPMS diagnostics and service.

2. KEY FEATURES

- **Comprehensive TPMS Functions:** Activates, reads, learns, and programs TPMS sensors.

- **Wide Sensor Compatibility:** Supports both 315MHz and 433MHz tire sensors.

- **Detailed Sensor Data:** Reads sensor ID, voltage, tire pressure, temperature, battery status, location, and frequency.

- **Efficient Programming:** Programs LAUNCH LTR-01 radio frequency tire pressure sensors.

- **User-Friendly Interface:** Features one-touch reception of sensor data and real-time tire status display.

- **Extensive Vehicle Coverage:** Compatible with 98% of global vehicles equipped with TPMS.

- **Built-in Guidance:** Provides integrated learning guidance for quick operation.

- **Durable Design:** Robust construction for professional use.

Figure 2.1: Overview of LAUNCH X-431 i-TPMS TSGUN capabilities and features.

3. COMPATIBILITY AND REQUIREMENTS

The LAUNCH X-431 i-TPMS TSGUN is designed to operate as an accessory to specific LAUNCH diagnostic tools. Please ensure your setup meets the following requirements:

- **Required Diagnostic Tablet:** Must be used with a LAUNCH diagnostic tablet of 8 inches or larger (e.g., X431 V/V+, PRO3S+, Pro3 ACE/APEX, Pro5, PAD V/VII). The TSGUN cannot be used as a standalone device.

- **Mobile Application:** Can also be used with the i-TPMS APP on Android devices.

- **Sensor Compatibility:** Supports 315MHz and 433MHz TPMS sensors.

- **Programming Limitation:** The TSGUN can only program LAUNCH LTR-01 sensors. It does not support programming of other brand sensors.
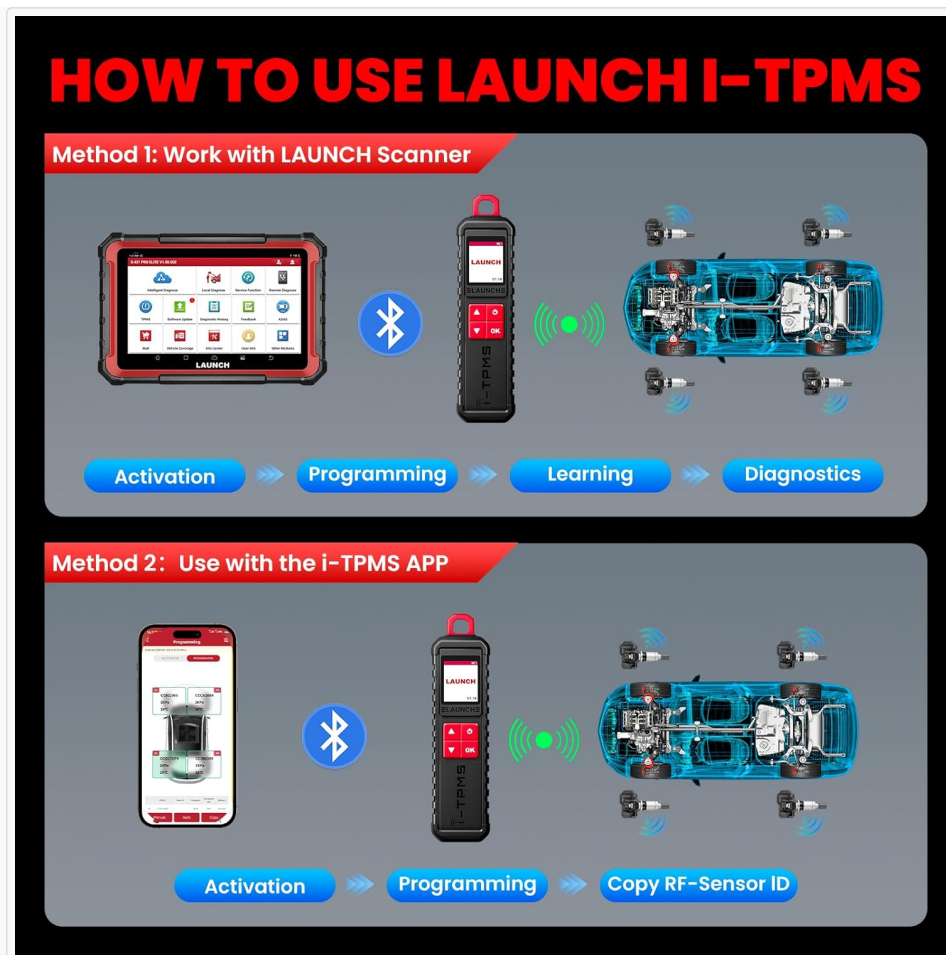
Figure 3.1: Two primary methods of using the LAUNCH i-TPMS TSGUN: with a LAUNCH scanner or the i-TPMS app.

4. Setup and Initial Use

Before using the LAUNCH X-431 i-TPMS TSGUN, ensure it is fully charged and properly paired with your compatible LAUNCH diagnostic tablet or Android device.

4.1. Charging the Device

Connect the TSGUN to a power source using the provided USB cable. The charging indicator will show the charging status. Ensure the device is fully charged before first use for optimal performance.

4.2. Pairing with a LAUNCH Diagnostic Tablet

1. Power on your LAUNCH diagnostic tablet and the TSGUN.
2. On the tablet, navigate to the TPMS application or module.
3. Follow the on-screen prompts to establish a Bluetooth connection between the tablet and the TSGUN. The pairing process is typically straightforward and guided by the tablet's software.
4. Once paired, the TSGUN is ready for use with the tablet's TPMS functions.

4.3. Using with the i-TPMS APP (Android)

1. Download and install the i-TPMS APP from the appropriate app store on your Android device.
2. Ensure Bluetooth is enabled on your Android device.
3. Open the i-TPMS APP and follow the instructions to pair with the TSGUN via Bluetooth.
4. Once connected, you can perform TPMS functions directly from your Android device.

5. OPERATING INSTRUCTIONS

The LAUNCH X-431 i-TPMS TSGUN offers several core functions for TPMS management. Always refer to the specific vehicle's service manual for detailed TPMS procedures.

Figure 5.1: Overview of the primary TPMS functions supported by the TSGUN.

5.1. TPMS Sensor Activation

This function is used to activate dormant TPMS sensors and retrieve their data. Point the TSGUN towards the tire valve stem and activate the sensor. The device will read and display the following information:

- Sensor ID
- Tire Pressure
- Tire Temperature
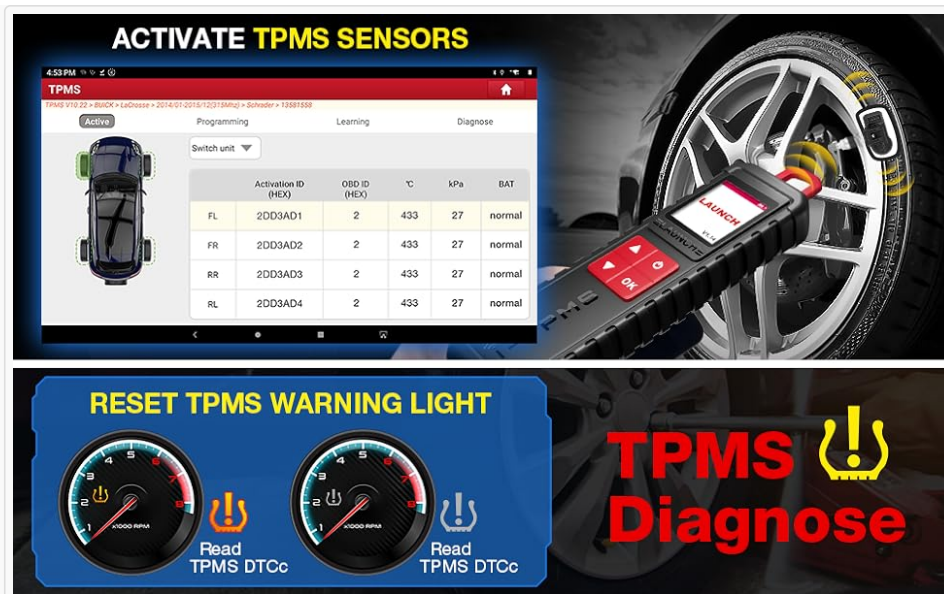- Sensor Battery Status
- Sensor Position
- Frequency

Figure 5.2: Visual representation of activating a TPMS sensor.

5.2. TPMS Relearn

After replacing a TPMS sensor or rotating tires, the vehicle's ECU needs to learn the new sensor IDs. The TSGUN supports various relearn procedures:

- **Stationary Relearn:** Requires the vehicle to be in a specific relearn mode, often initiated via the vehicle's dashboard controls.
- **Automatic Relearn:** The vehicle automatically learns new sensor IDs after driving for a certain period under specific conditions.
- **OBD Relearning:** Writes new sensor IDs directly to the vehicle's TPMS module via the OBD-II port, typically performed through the connected LAUNCH diagnostic tablet.
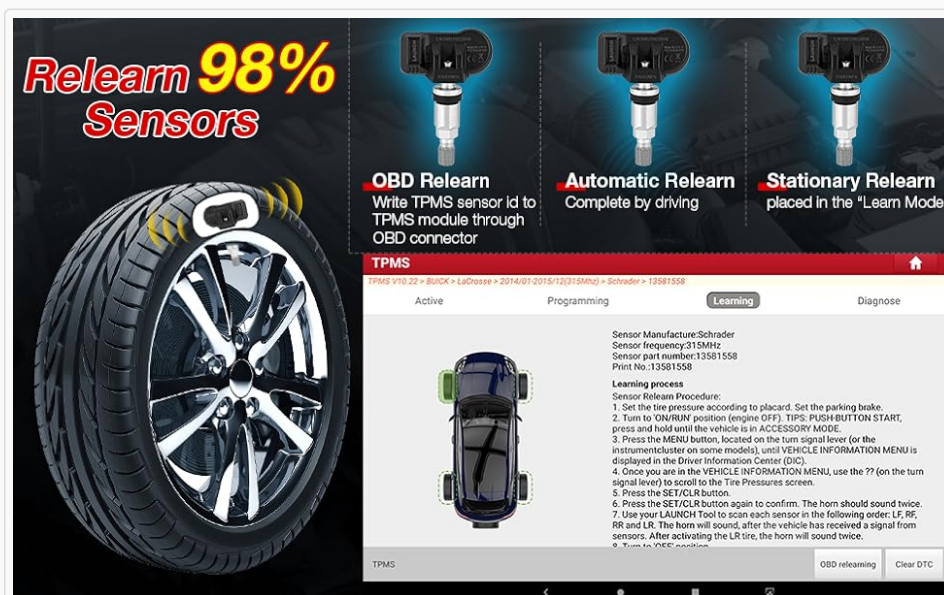

Figure 5.3: Different methods for TPMS sensor relearning.

5.3. TPMS Sensor Programming

The TSGUN can program blank LAUNCH LTR-01 sensors to replace faulty or missing sensors. It offers four programming methods:

- **Auto Create:** Generates a new, unique sensor ID.
- **Manual Create:** Allows manual input of a specific sensor ID.

- **Copy by Activation:** Copies the ID from an existing activated sensor.
- **Copy by OBD:** Copies sensor IDs directly from the vehicle's ECU via the OBD-II port.

Important: This tool can only program LAUNCH LTR-01 sensors. It is not compatible with other brands of TPMS sensors for programming.

Figure 5.4: The four programming methods available for LAUNCH LTR-01 sensors.

5.4. TPMS Diagnosis

The TSGUN, in conjunction with a LAUNCH diagnostic tablet, can perform quick and complete TPMS health status checks, including:

- Reading and clearing TPMS Diagnostic Trouble Codes (DTCs).
- Turning off the TPMS warning light on the dashboard.
- Checking sensor ID matching with the vehicle's ECU.

Figure 5.5: Diagnostic capabilities of the TSGUN for TPMS systems.

6. MAINTENANCE

To ensure the longevity and optimal performance of your LAUNCH X-431 i-TPMS TSGUN, follow these maintenance guidelines:

- **Cleaning:** Wipe the device with a soft, dry cloth. Avoid using abrasive cleaners or solvents that could damage the casing or screen.

- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures.

- **Battery Care:** Recharge the device regularly, even if not in frequent use, to maintain battery health. Avoid fully discharging the battery for extended periods.

- **Firmware Updates:** Periodically check for and install firmware updates for the TSGUN via your connected LAUNCH diagnostic tablet. This ensures compatibility with new vehicle models and improved functionality.

7. TROUBLESHOOTING

If you encounter issues while using the LAUNCH X-431 i-TPMS TSGUN, refer to the following common troubleshooting tips:

- **Device Not Powering On:** Ensure the battery is charged. Connect to a power source and allow it to charge for at least 30 minutes before attempting to power on again.

- **Failure to Connect/Pair:**

  - Verify Bluetooth is enabled on both the TSGUN and the diagnostic tablet/Android device.
  - Ensure the TSGUN is within Bluetooth range of the tablet/device.

- Restart both the TSGUN and the tablet/device.
- Confirm that your LAUNCH diagnostic tablet is 8 inches or larger, as required for compatibility.

- **Cannot Activate/Read Sensor:**

  - Ensure the TSGUN is positioned correctly near the tire valve stem.
  - Check if the sensor is active or if it's a compatible 315MHz/433MHz sensor.
  - Verify the sensor itself is not faulty.

- **Cannot Program Sensor:**

  - Confirm that the sensor you are attempting to program is a LAUNCH LTR-01 sensor. The TSGUN cannot program other brands.
  - Ensure the TSGUN has sufficient battery charge.

- **TPMS Light Remains On After Relearn:**

  - Verify that the relearn procedure was completed successfully according to the vehicle's specific requirements.
  - Check for any remaining TPMS DTCs using the diagnostic function.
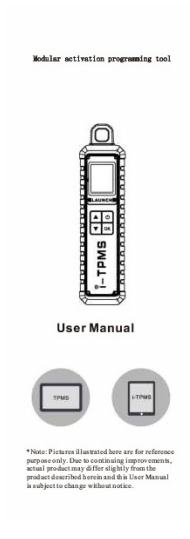 - Ensure all sensors are functioning correctly.

8. SPECIFICATIONS

Specification	Detail
Model Number	Launch X-431 TSGUN
Item Weight	12.3 ounces
Product Dimensions	9.92 x 2.13 x 1.18 inches
Display Resolution	168*128 LED Display
Battery Type	1 Lithium Ion battery (included)
Battery Capacity	2000 mAh
Sensor Compatibility	315MHz / 433MHz

9. WARRANTY AND SUPPORT

LAUNCH is committed to providing reliable products and customer satisfaction.

- **Return/Replacement Policy:** The product is eligible for a 30-day refund or replacement from the date of purchase, provided there is no reason for return.

- **Technical Support:** For any questions or assistance with the LAUNCH X-431 i-TPMS TSGUN, please utilize the Q&A section on the product's purchase page for timely support.

- **Lifetime Upgrades:** Benefit from lifetime software upgrades to ensure your tool remains current with new vehicle models and TPMS technologies.

Related Documents - Launch X-431 TSGUN

LAUNCH Automotive Diagnostic Tools: Comprehensive Product Catalog

Explore the full range of LAUNCH automotive diagnostic tools, including advanced scanners like X-431 PAD VII ELITE, X-431 PRO series, CRP series, and specialized tools for key programming, TPMS, and new energy vehicles. Detailed features, specifications, and capabilities.

Launch GIII X-Prog 3 Advanced Immobilizer & Key Programmer Guide

Comprehensive guide to the Launch GIII X-Prog 3, an advanced immobilizer and key programmer for automotive diagnostics and key programming. Covers features, supported brands, systems, chip brands, connection methods, update procedures, specifications, and package contents.

Launch i-TPMS User Manual: Modular Activation Programming Tool

User manual for the Launch i-TPMS, a modular activation programming tool for tire pressure monitoring systems. Covers safety precautions, components, technical parameters, working principle, initial use, getting started, job menu, TPMS operations (activation, programming, relearning), and troubleshooting.

LAUNCH UK Product Catalogue: Professional Automotive Diagnostic Tools

Explore the comprehensive LAUNCH UK product catalogue featuring advanced X-431 series diagnostic tools, TPMS solutions, maintenance equipment, and testing tools for professional workshops. Discover innovative automotive diagnostic technology.

LAUNCH LTR-03 RF-Sensor Quick Start Guide | Installation & Safety

Get started with your LAUNCH LTR-03 RF-Sensor. This guide provides essential safety instructions, installation steps, technical specifications, and warranty information for the LAUNCH TPMS sensor.

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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.

[LAUNCH i-TPMS User Manual: Tire Pressure Monitoring System Service Tool Guide](#)
Comprehensive user manual for the LAUNCH i-TPMS handheld tire pressure monitoring system service tool. Learn about safety precautions, components, technical specifications, operation, programming, relearning, and troubleshooting.