LAUNCH i-TPMS

LAUNCH X-431 i-TPMS Tire Pressure Monitor System Service Tool

Model: i-TPMS | Brand: LAUNCH

PRODUCT OVERVIEW

The LAUNCH X-431 i-TPMS is a professional tire pressure service tool designed for comprehensive TPMS sensor management. It integrates activation, reading, learning, and programming functionalities for tire pressure monitoring systems. This tool is engineered to activate and read tire pressure information by receiving signals at both low and high frequencies, enabling timely detection of abnormal conditions to prevent tire pressure-related issues.

It supports all 315/433MHz sensors and can program LAUNCH LTR RF sensors an unlimited number of times to replace original equipment (OE) sensors. The device provides instant and accurate sensor data, including sensor ID, tire pressure, tire temperature, and battery status.

The i-TPMS tool is capable of programming up to 8 LAUNCH brand sensors (such as LTR-03/TSENSOR-03, TSENSOR-05) simultaneously, without vehicle model limitations, as long as the LAUNCH X-431 tablet supports the model.

This upgraded version of the TSGUN offers the additional function of connecting to an Android phone, allowing users to perform tire pressure activation, programming, and ID copying conveniently. Please note that this feature is not currently supported for iPhone devices.

The tool is compatible with various LAUNCH X431 series tablets, including X431 V/V+, PAD III/V/VII, PRO 5, PRO 3S+, PRO S, PRO STAR, and PRO Elite, covering approximately 99% of global vehicles equipped with a tire pressure system.

LAUNCH officially recommends using LAUNCH LTR03/TSENSOR-03 and TSENSOR-05 TPMS RF sensors, which are compatible with i-TPMS and serve as perfect replacements for OE-sensors.

SETUP AND INITIAL USE

The LAUNCH X-431 i-TPMS tool can be paired with a LAUNCH X-431 series tablet or an Android phone for operation. Ensure the device is charged using the provided USB cable.

Pairing with a LAUNCH X-431 Tablet:

1. Power on the i-TPMS tool. The screen will display "LAUNCH" and the software version.

2. On your LAUNCH X-431 tablet, open the TPMS application.

3. Navigate to the "Switch Device" option within the TPMS application.

4. Select the i-TPMS tool by its serial number to establish a Bluetooth connection.

5. Once connected, the tablet will display the TPMS interface, allowing you to select vehicle make, model, and year.

Pairing with an Android Phone:

1. Power on the i-TPMS tool.

2. Download the i-TPMS app to your Android phone. The app can typically be found by scanning a QR code provided in the product packaging or user manual. Note: Ensure your phone settings allow installation from unknown sources if downloading outside of official app stores.

3. Open the i-TPMS app and follow the on-screen prompts to connect via Bluetooth. The device will appear as a faded red box with its serial number; tap it and confirm.

4. Once connected, you can perform activation, programming, and ID copying functions directly from your phone.

Figure 1: LAUNCH X-431 i-TPMS tool with a tablet and tires, illustrating its primary function.

Figure 2: Diagram showing the two main usage scenarios: connecting with an X-431 scanner for active, learning, and diagnosis functions, and connecting with the i-TPMS app for active, programming, and copying TPMS RF-sensor ID.

OPERATING THE I-TPMS TOOL

TPMS Sensor Activation:

To activate a TPMS sensor, hold the i-TPMS tool near the tire valve stem. Press the activation button on the tool. The tool will emit a tone and display the sensor's ID, pressure, temperature, and battery status on its screen and the connected tablet/phone.

Figure 3: A user holding the i-TPMS tool next to a car tire, demonstrating the activation process. The tool's display shows "LAUNCH" and version information.
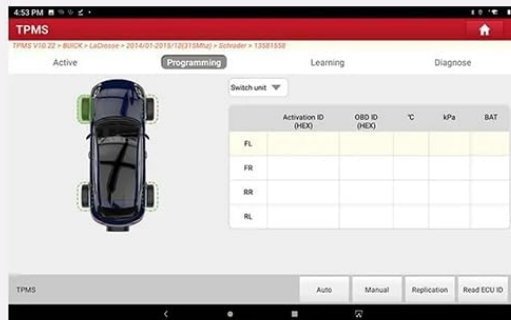
TPMS Sensor Programming:

The i-TPMS tool supports various programming methods for LAUNCH brand sensors:

- **Auto Create Sensor ID:** When the original sensor ID is unknown, the i-TPMS can automatically generate a new ID.

- **Manual Create Sensor ID:** Allows users to manually input a sensor ID.

- **Copy by Activation:** Copies the ID from an existing activated sensor.

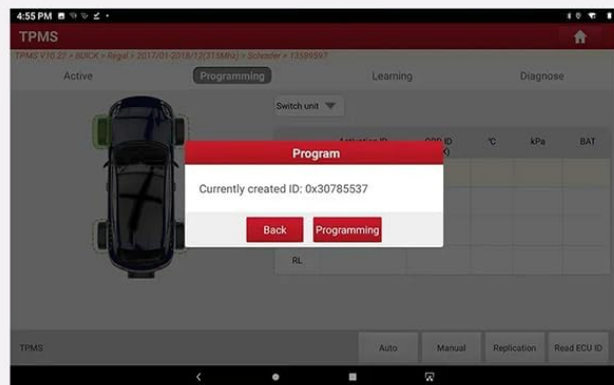- **Copy by OBD:** Copies the ID from the vehicle's ECU via the OBD-II port (requires connection to a

LAUNCH X-431 tablet).

Figure 4: Visual representation of TPMS sensor programming methods, including auto-creation and manual ID input, with the i-TPMS tool interacting with a wheel and a tablet.

TPMS Relearn Procedures:

After replacing or programming TPMS sensors, they must be relearned to the vehicle's ECU. The i-TPMS tool, when connected to a LAUNCH X-431 tablet, supports different relearn types:

- **OBD Relearn:** Writes TPMS sensor IDs to the TPMS module through the OBD connector. This is often the most comprehensive method.
- **Automatic Relearn:** Completed by driving the vehicle under specific conditions.

- **Stationary Relearn:** Requires placing the vehicle in a specific relearn mode and using the tool to trigger each sensor.

For OBD relearning, ensure all tires are inflated to the pressure listed on the tire placard (located in the door jamb of your vehicle). Turn the ignition to the ON position. Connect the TPMS tool to the OBD-II port and then use the tool to trigger each sensor in the specified order (Left Front, Right Front, Right Rear, Left Rear, and full-size spare if applicable). A message will confirm successful learning.
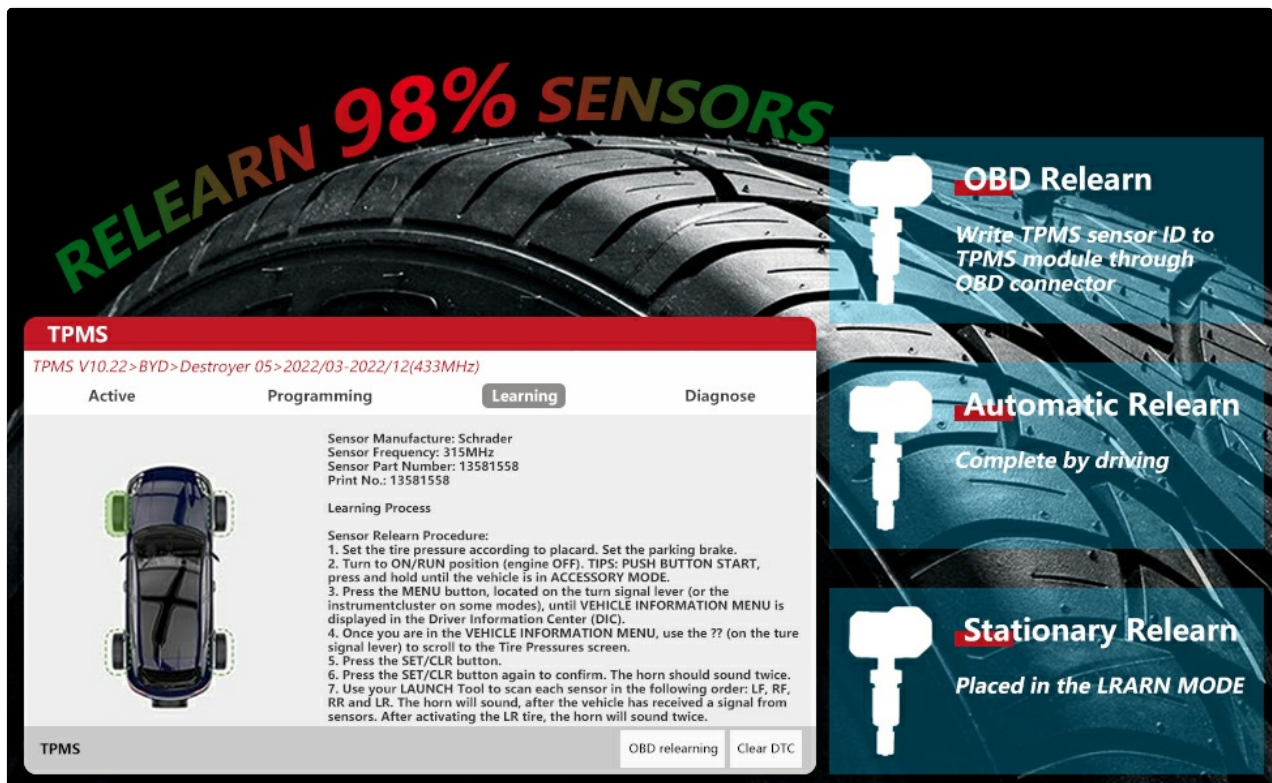

Figure 5: Overview of TPMS relearn methods, including OBD Relearn, Automatic Relearn, and Stationary Relearn, highlighting the tool's capability to relearn 98% of sensors.

Reading and Clearing Fault Codes:

The i-TPMS tool can read and clear TPMS fault codes, helping to diagnose and resolve issues indicated by the TPMS warning light on the dashboard.

Figure 6: Depiction of the process to read fault codes when the TPMS light is on, and clearing them to turn the light off, using the LAUNCH X-431 i-TPMS tool.

MAINTENANCE

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

- **Cleaning:** Use a soft, dry cloth to clean the device. Avoid abrasive cleaners or solvents that could

damage the casing or screen.

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

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

- **Software Updates:** Periodically check for and install software updates for both the i-TPMS tool firmware and the connected tablet/phone application. Updates often include bug fixes, new vehicle coverage, and improved functionalities.

- **Cable Management:** Handle the USB cable with care to prevent damage to the connectors or wiring.

TROUBLESHOOTING

If you encounter issues with your LAUNCH X-431 i-TPMS tool, consider the following troubleshooting steps:

- **Connection Issues:**

  - Ensure Bluetooth is enabled on your tablet/phone and the i-TPMS tool is powered on and within range.
  - Verify that the correct serial number of the i-TPMS tool is selected for pairing.
  - Restart both the i-TPMS tool and the connected device.

- **Sensor Activation Failure:**

  - Confirm the tool is held correctly near the valve stem, typically with the orange square opening around the valve.
  - Ensure the tire pressure is correct and the sensor battery is not depleted.
  - Check for any physical obstructions or damage to the sensor or valve stem.

- **Programming Issues:**

  - Verify that you are using LAUNCH brand sensors (LTR-03/TSENSOR-03, TSENSOR-05) as the tool is designed to program only these.
  - Ensure the connected tablet/phone app is up-to-date.

- **App Functionality (Android):**

  - If the app requires unusual permissions (e.g., internet history, call/text history), exercise caution. While some diagnostic tools may require broad permissions for full functionality, users should be aware of data privacy implications.
  - Ensure the app is downloaded from a trusted source, ideally the official LAUNCH website or a verified app store.

- **Firmware Update Issues:**

  - Ensure a stable internet connection and sufficient battery charge on both devices.
  - Follow the on-screen instructions carefully during the update process.

SPECIFICATIONS

Name	Parameter
Model	LAUNCH X-431 i-TPMS
Display	1.77 inches
Resolution	168 x 128 Pixels
Battery	2000 mAh (1 Lithium Ion batteries required)
DC Input Voltage	5 V
Operating Current	≤1 A
Operating Temperature	-10°C~50°C
Storage Temperature	-20°C~60°C
Package Dimensions	10 x 3.39 x 2.13 inches
Item Weight	10.5 ounces
Country of Origin	China
Automotive Fit Type	Universal Fit

LAUNCH i-TPMS

What's in the box?

Sensor Slot

Charging LED

Display Screen

LAUNCH

V1.00.001

UP Button

POWER Button

DOWN Button

OK (Confirm) Button

Charging Port

1 x LAUNCH X431 i-TPMS

1 x Charging Cable

1 x User Manual

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DC Input Voltage	5 V
Operating Current	≤1 A
Operating Temperature	-10℃~50℃
Storage Temperature	-20℃~60℃
Package Size	205 x 57 x 25.5 mm

Figure 7: Detailed view of the LAUNCH X-431 i-TPMS tool, highlighting its components and providing a table of technical specifications.

WHAT'S IN THE BOX
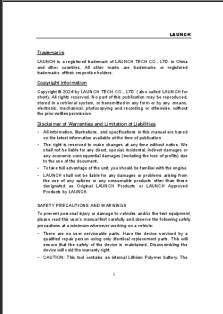
- 1 x LAUNCH X-431 i-TPMS device
- 1 x USB Cable
- 1 x User Manual

The LAUNCH X-431 i-TPMS tool comes with a 2-year warranty. LAUNCH provides 7*24 technical support and a team of professionals for any post-sales issues and technical instruction.

Related Documents - i-TPMS

[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.

[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 CRT511SV2 Smart TPMS Diagnostic System User Manual Comprehensive user manual for the LAUNCH CRT511SV2 Smart TPMS Diagnostic System, covering features, operations, safety precautions, and troubleshooting for automotive TPMS and OBD II diagnostics.
LAUNCH PRODUCTS **X-431 PAD VII ELITE** X-431 PAD VII ELITE is an unsurpassed high-end diagnostic tool from LAUNCH, comes with the ADAS calibration function, full-system diagnostic functions, TPMS service and AdHoc modules. New ScanStick & 921 powers technician a new diagnostic level without the limitation of diagnostic functions, data and vehicle type. **Specifications**	**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.
LAUNCHUK **PRODUCT CATALOGUE** 1/2022 PROFESSIONAL DIAGNOSTICS SUPER REMOTE DIAGNOSIS SOLUTION HEALTH DIAGNOSTICS SEMI-PROFESSIONAL DIAGNOSTICS WHEEL SERVICE AIR CONDITIONING SERVICE MAINTENANCE DEVICE TESTING TOOLS	**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.
Creader 971 V1.00.006 2017-09-11	**LAUNCH Creader 971 TPMS Activation and Diagnostic Tool User Manual** Comprehensive user manual for the LAUNCH Creader 971, a TPMS activation and diagnostic tool. Covers product overview, specifications, features, operation, charging, registration, upgrade, and warranty information.