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Autel MX-Sensor

Autel MaxiTPMS MX-Sensor Instruction Manual

Universal Programmable TPMS Sensor (315MHz/433MHz)

1. INTRODUCTION

The Autel MaxiTPMS MX-Sensor is a universal programmable Tire Pressure Monitoring System (TPMS) sensor designed to replace original equipment (OE) sensors. It combines both 315MHz and 433MHz frequencies into a single sensor, offering broad vehicle coverage. This sensor is compatible with Autel MaxiTPMS diagnostic tools for activation, programming, and relearning procedures.



Image 1.1: Autel MX-Sensor packaging and a single sensor unit. The packaging highlights dual frequency (315MHz/433MHz) and universal compatibility. The sensor itself is shown with a rubber valve stem.

2. SETUP AND INSTALLATION

Proper installation of the MX-Sensor is crucial for accurate tire pressure monitoring. The sensor features interchangeable rubber and metal valve stems to accommodate various wheel types. Installation requires specialized tire service equipment and should ideally be performed by a trained technician.

2.1 Components of the MX-Sensor



Image 2.1: Exploded view of the Autel MX-Sensor with a rubber valve. Components include the sensor body, screw, rubber grommet, valve stem, and cap. This design helps prevent air leakage.

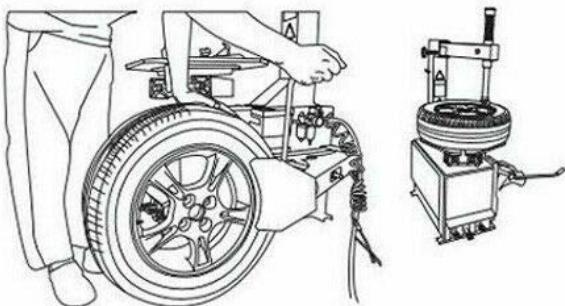
2.2 Installation Procedure

The following steps outline the general installation process. Always refer to vehicle-specific service manuals for precise instructions.

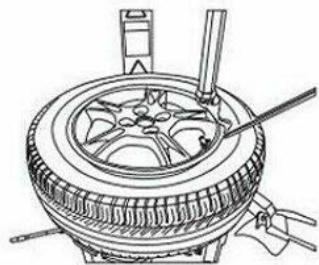
- 1. Loosen the Tire:** Use appropriate equipment to loosen the tire from the wheel rim.
- 2. Dismount the Tire:** Carefully dismount the tire from the wheel using a tire changer.
- 3. Dismount the Old Sensor:** Remove the existing TPMS sensor from the wheel.
- 4. Mount the New MX-Sensor and Valve:** Insert the new MX-Sensor and ensure the sensor body and valve stem are firmly connected. The interchangeable valve stems allow for easy replacement without special tools.
- 5. Mount the Tire:** Mount the tire back onto the wheel, ensuring proper seating.
- 6. Inflate and Balance:** Inflate the tire to the recommended pressure and balance the wheel.

Installation Diagram

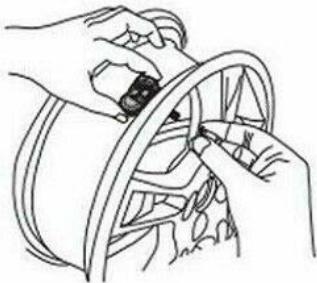
1 Loosening the tire



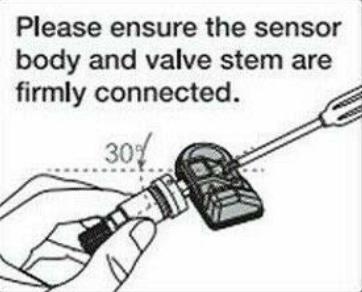
2 Dismounting the tire



3 Dismounting the sensor



4 Mounting sensor and valve



5 Mounting the tire

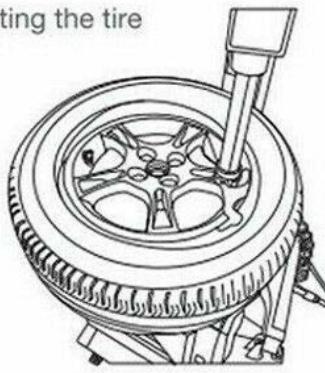


Image 2.2: A six-step diagram illustrating the installation process for a TPMS sensor, from loosening the tire to mounting the new sensor and remounting the tire.

2.3 Sensor Programming and Relearning

After physical installation, the MX-Sensor must be programmed and relearned to the vehicle's TPMS system using a compatible Autel MaxiTPMS tool (e.g., TS408, TS508, TS608, MK808TS, ITS600, MS906Pro-TS). This process typically involves:

- **Activation:** Waking up the new sensor.
- **Programming:** Transferring the vehicle's original sensor ID or generating a new one to the MX-Sensor. The MX-Sensor supports 100% ID cloning, allowing direct replacement without relearning in some cases.
- **Relearning:** Registering the new sensor IDs with the vehicle's Engine Control Unit (ECU).

Image 2.3: An image highlighting key features of the Autel MX-Sensor, including 99% vehicle coverage, 100% ID cloneability, and wireless programming capabilities.

3. OPERATING PRINCIPLES

The Autel MX-Sensor continuously monitors tire pressure and temperature, transmitting this data wirelessly to the vehicle's TPMS receiver. This system alerts the driver to under-inflated tires or significant pressure drops, contributing to driving safety and tire longevity.

- **Dual Frequency:** Operates on both 315MHz and 433MHz frequencies, ensuring compatibility with a wide range of vehicles globally.
- **Real-time Monitoring:** Provides continuous updates on tire pressure and temperature.
- **Wireless Programming:** Can be programmed wirelessly using Autel TPMS tools, often allowing multiple sensors to be programmed simultaneously.
- **ID Cloning:** Supports cloning of existing sensor IDs, simplifying replacement procedures.



Image 3.1: A visual representation of a vehicle's tire pressure monitoring system, displaying individual tire pressures and temperatures on a simulated dashboard interface.

4. MAINTENANCE

TPMS sensors are generally maintenance-free once installed and programmed. However, regular tire maintenance practices contribute to the longevity and proper function of the sensors:

- **Regular Tire Pressure Checks:** Even with TPMS, manually checking tire pressure periodically is recommended.
- **Valve Stem Care:** Ensure valve caps are securely fastened to prevent dirt and moisture ingress. Avoid overtightening.
- **Professional Service:** When tires are replaced or repaired, ensure that the TPMS sensors are handled by qualified personnel to prevent damage.
- **Battery Life:** MX-Sensors have a long-lasting battery. When the battery depletes, the sensor will need to be replaced, as the battery is not user-replaceable.

5. TROUBLESHOOTING

If you encounter issues with your TPMS system after installing MX-Sensors, consider the following common troubleshooting steps:

- **TPMS Warning Light On:** This indicates a tire pressure issue or a sensor malfunction. Check all tire pressures manually. If pressures are correct, the sensor may need reprogramming or replacement.
- **Sensor Not Detected:** Ensure the sensor was correctly installed and programmed using an Autel TPMS tool.

Verify the tool's software is up to date.

- Incorrect Pressure Readings:** Recalibrate the sensor using an Autel TPMS tool. Ensure the tire pressure gauge used for manual checks is accurate.
- Intermittent Warnings:** This could be due to a weak sensor battery or radio interference. If the battery is low, the sensor will need replacement.

For persistent issues, consult an automotive professional or contact Autel customer support.

6. SPECIFICATIONS

Specification	Value
Product Dimensions	2.13 x 1.16 x 0.75 inches
Item Model Number	MX-Sensor
Manufacturer	Autel
Material	Rubber (valve stem)
Item Weight	12 Grams
Frequency	315MHz & 433MHz (Dual Frequency)
Vehicle Coverage	98% (approx.)
Operating Temperature	High & Low Temperature Resistant

7. WARRANTY INFORMATION

For detailed warranty information regarding your Autel MaxiTPMS MX-Sensor, please refer to the official Autel website or the warranty card included with your product. Warranty terms and conditions may vary by region and product. It is recommended to retain your proof of purchase for warranty claims.

8. SUPPORT

If you require technical assistance, have questions about product compatibility, or need further support, please visit the official Autel website or contact their customer service department. The Autel website provides access to product updates, FAQs, and contact information for support.

Autel Official Website: www.autel.com

Related Documents - MX-Sensor

	<p>Autel MaxiTPMS Tools Catalog 2018: Advanced TPMS Diagnostic Solutions</p> <p>Discover the comprehensive Autel MaxiTPMS 2018 catalog, featuring advanced TPMS service tools like the TS508, TS608, and MS906TS. Explore programmable MX-Sensors, accessory kits, and warranty information for professional automotive diagnostics.</p>
	<p>Autel MX-Sensor Programmable Universal TPMS Sensor Installation Guide</p> <p>Comprehensive installation guide for the Autel MX-Sensor, a programmable universal TPMS sensor available for 433MHz and 315MHz frequencies with metal and rubber valves. Includes safety instructions, warranty information, and detailed step-by-step installation procedures.</p>
	<p>MaxiTPMS ITS600 CV Användarmanual</p> <p>Denna manual ger omfattande instruktioner för Autel MaxiTPMS ITS600 CV, ett professionellt diagnostikverktyg för fordon. Den täcker installation, drift, TPMS-tjänster, diagnostik, batteritestning och underhållsprocedurer för en mängd olika fordon.</p>
	<p>Autel MX-Sensor CVS-A01 Programmable Commercial Vehicle TPMS Sensor Installation Guide</p> <p>Detailed installation guide for the Autel MX-Sensor CVS-A01, a programmable universal commercial vehicle TPMS sensor. Covers safety, dismounting, mounting, and technical specifications.</p>
	<p>Autel MaxiTPMS TS401 User Manual and Guide</p> <p>Comprehensive user manual for the Autel MaxiTPMS TS401 tool, covering safety precautions, TPMS system information, tool operation, specifications, activation procedures, software updates, and warranty details.</p>
	<p>AUTEL MX-SENSOR Programmable Universal TPMS Sensor Installation Guide</p> <p>Comprehensive installation guide for the AUTEL MX-SENSOR Programmable Universal TPMS Sensor. Covers safety, step-by-step installation for metal and rubber valve types, technical specifications, warranty, and regulatory compliance.</p>