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› Autel MX Sensor (315/433MHz Metal Stem) Instruction Manual

Autel MX Sensor

Autel MX Sensor (315/433MHz Metal Stem) Instruction Manual

Model: MX Sensor

INTRODUCTION

The Autel MX Sensor is a universal Tire Pressure Monitoring System (TPMS) sensor designed to combine both 315MHz and 433MHz frequencies into a single unit. This design provides extensive vehicle coverage, making it a versatile replacement for a wide range of vehicles. MX-Sensors support 100% original sensor ID cloning, allowing for direct replacement without the need for relearning in many cases. When paired with compatible Autel MaxiTPMS tools (such as TS408, TS508, TS608, MX808TS, MS906TS, MK808TS, ITS600, ITS600Pro, MS906Pro-TS), these sensors can be activated, programmed, and relearned efficiently.

KEY FEATURES

- **Dual Frequency (315MHz + 433MHz):** Combines both frequencies into one sensor for maximum vehicle coverage.
- **100% ID Clone-able:** Allows direct replacement without relearning when cloning original sensor IDs.
- **Wide Vehicle Coverage:** Compatible with 98% of worldwide vehicles, covering 75+ makes and 1400+ models from 1996-2023.
- **Unlimited Programmable:** Can be activated, relearned, and programmed by Autel TPMS tools. Up to 20 sensors can be programmed simultaneously in 5-6 seconds.
- **Interchangeable Valve Stems:** Features an exclusive adjustable design for press-in rubber/metal valves, minimizing installation time.
- **Durable Design:** Equipped with an automotive-level battery for long life, resistant to cold, heat, and corrosion, compatible with SAE J1205/J1206 test standards.
- **Lightweight:** Weighs only 11 grams, contributing to better performance and longer battery life.

AUTEL**MaxiTPMS****2-IN-1****TPMS SENSOR****100%**

Cloneable

6-Year

Battery Life

Dual

Frequency

Same as

OEM Sensor

Programmable Dual
Frequency SensorWireless & Unlimited
ProgrammingEasy Installation &
Programming15-30° Adjustable
Valve StemSAE J1205/J1206/
J2657 CertifiedOptimize Signal &
Performance**20** PCS
Save More**315&433MHz**

Image: An illustration showcasing the key features of the Autel MX Sensor, including 100% cloneable, dual frequency, 6-year battery life, wireless & unlimited programming, easy installation, 15-30° adjustable valve stem, SAE J1205/J1206/J2657 certification, and optimized signal & performance.

SETUP AND PROGRAMMING

Before installation, Autel MX-Sensors must be programmed using a compatible Autel MaxiTPMS tool. There are several programming methods available:

1. Copy by OBD

This is the most recommended method as it often eliminates the need for a relearn procedure. The TPMS tool retrieves sensor IDs and locations directly from the vehicle's ECU.

1. Connect your Autel TPMS tool (e.g., TS508WF, ITS600) to the vehicle's OBD2 port.
2. Turn the vehicle ignition to the ON position.

3. Select the vehicle's year, make, and model on the TPMS tool. Verify the build date from the driver's door jamb.
4. Perform a TPMS diagnose to identify any faulty sensors and confirm wheel locations.
5. On the tool, navigate to "Program Sensor" and select "Copy by OBD".
6. The tool will display sensor IDs and locations retrieved from the ECU.
7. Place the new MX-Sensor near the top of the TPMS tool.
8. Select the wheel location for which you want to create a sensor and confirm programming. The tool will program the MX-Sensor with the copied ID.

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Video: Demonstrates how to program Autel MX-Sensors using the "Copy by OBD" method with the Autel TS508WF tool. It shows connecting the tool to the vehicle, performing a TPMS diagnostic, and then programming a new sensor by copying the ID from the vehicle's ECU.

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Video: Illustrates the "Copy by OBD" programming method for Autel MX-Sensors using the Autel ITS600 tool. It covers connecting the VCI to the OBD2 port, selecting the vehicle, performing diagnostics, and programming new sensors by copying existing IDs.

2. Copy by Activation

This method involves activating an existing sensor to retrieve its ID, which is then copied to a new MX-Sensor.

1. Select "Copy by Activation" on your Autel TPMS tool.
2. Place the tool near the original sensor to trigger and acquire its ID.
3. Place a new MX-Sensor near the top of the TPMS tool and confirm programming. The original sensor's ID will be copied to the new sensor.

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Video: Shows the process of programming Autel MX-Sensors using the "Copy by Activation" method with the Autel TS508 tool. It demonstrates activating an existing sensor to retrieve its ID and then copying that ID to a new MX-Sensor.

3. Copy by Manual Input

If the original sensor ID is known (e.g., from the sensor body), it can be manually entered into the tool.

1. Select "Copy by Manual Input" on your Autel TPMS tool.
2. Enter the original OE sensor ID into the tool using the on-screen keyboard.
3. Place a new MX-Sensor near the top of the TPMS tool and confirm programming.

4. Auto Create

This method generates a new, random ID for the MX-Sensor. A relearn procedure will be necessary after using this method.

1. Select "Auto Create" on your Autel TPMS tool.
2. Place the MX-Sensors close to the tool (within 4 inches) and keep other sensors at least 4 feet away.
3. The tool will automatically detect and program each sensor with a unique ID.
4. A relearn procedure is required after using "Auto Create".

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Video: Demonstrates the "Auto Create" programming method for Autel MX-Sensors. It shows how to generate new, random IDs for multiple sensors simultaneously using a compatible Autel TPMS tool.

INSTALLATION STEPS

The Autel MX-Sensor features an adjustable design for easy installation. Ensure you have the correct valve stem (metal or rubber) for your application.

1. **Disassemble the Tire:** Carefully dismount the tire from the wheel.
2. **Remove Old Sensor:** Remove the old TPMS sensor and valve stem from the wheel.
3. **Assemble New Sensor:** Attach the appropriate valve stem to the MX-Sensor body. The press-in design allows for easy interchangeability.
4. **Install New Sensor:** Insert the new MX-Sensor assembly into the valve stem hole on the wheel. Ensure it is securely fastened according to the manufacturer's torque specifications.
5. **Mount the Tire:** Mount the tire back onto the wheel.
6. **Inflate Tire:** Inflate the tire to the recommended pressure.
7. **Balance Wheel:** Balance the wheel and tire assembly.

99% of Vehicle Coverage

 American Model

 Asian Model

 European Model



Applicable Models



Image: A visual guide showing the 6-step installation process for the Autel MX Sensor, from dismounting the tire to mounting it back.

RELEARN PROCEDURE

After installing new MX-Sensors (especially if programmed via "Auto Create"), a relearn procedure is often necessary to introduce the new sensor IDs to the vehicle's ECU. The specific relearn procedure varies by vehicle make and model.

1. **Consult Vehicle Manual:** Refer to your vehicle's owner's manual for the specific TPMS relearn procedure.
2. **Use TPMS Tool:** Follow the on-screen instructions on your Autel TPMS tool under the "Relearn" function.
3. **Drive Cycle:** For many vehicles, a drive cycle is required. Drive for 5-20 minutes at 40-50 mph to allow the vehicle to automatically learn the new sensor IDs.
4. **Verify:** After the relearn procedure, ensure the TPMS warning light on the dashboard is off and the system is functioning correctly.

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Video: Illustrates the relearn process for TPMS sensors after installation. It shows using a TPMS tool to activate sensors and the dashboard indicating "Training Complete" after a successful relearn.

MAINTENANCE

- **Regular Tire Pressure Checks:** Even with TPMS, regularly check tire pressure manually to ensure accuracy and optimal tire health.
- **Valve Stem Inspection:** Periodically inspect valve stems for signs of damage, corrosion, or leaks. Replace if necessary.
- **Battery Life:** MX-Sensors are equipped with an automotive-level battery designed for 4-6 years of life. Monitor TPMS warnings for low battery indications.
- **Professional Service:** For any complex TPMS issues or sensor replacements, it is recommended to seek professional automotive service.

TROUBLESHOOTING

- **TPMS Light Remains On:**
 - Ensure all sensors are correctly programmed and installed.
 - Perform a complete relearn procedure as per vehicle specifications.
 - Check tire pressures to ensure they match recommended levels.
 - Use an Autel TPMS tool to diagnose specific sensor faults or communication issues.
- **Incorrect Pressure Readings:**
 - Verify tire pressure with a reliable manual gauge.
 - Check for physical damage to the sensor or valve stem.
 - Recalibrate the TPMS system if possible, or perform a relearn.
- **Sensor Not Activating/Programming:**
 - Ensure the MX-Sensor is placed correctly near the TPMS tool during programming.

- Check the battery level of the TPMS tool.
- Confirm the vehicle selection (year, make, model) is accurate on the tool.
- If using "Copy by Activation", ensure the original sensor is functional.

SPECIFICATIONS

Feature	Detail
Frequency	315MHz / 433MHz (Dual Frequency)
Battery Life	4-6 Years (Automotive-level battery)
Pressure Range	0 to 800 kPa (± 10 kPa)
Temperature Range	-40°C to +125°C
Valve Stem Material	Interchangeable Rubber / Metal
Weight	Approximately 11 grams
Compliance	SAE J1205/J1206/J2657 Test Standard
Product Dimensions	0.69 x 1.67 x 1.1 inches
Item Weight	4.6 ounces (for 4 pcs pack)

Functions as OE Sensors

Reliable Quality & Long-lasting Power

6year
Battery Life

0.1Bar
Pressure Precision

2400
Working Miles

99%
Replaceable
OE sensor



Newest Freescale
FxtH870911 chip



Stand
-40°C~125°C



SAE J1205/J1206
J2657



Easy Press
Release

Image: An illustration highlighting key features and specifications of the Autel MX Sensor, including 6-year battery life, 0.1 Bar pressure precision, 2400 working miles, 99% replaceable OE sensor, Freescale FxtH870911 chip, and temperature range of -40°C to 125°C.

WARRANTY

Autel MX-Sensors are guaranteed to be free from manufacturing defects for a period of 24 months or 24,000 miles, whichever comes first. This warranty ensures the quality and reliability of the product under normal use conditions.

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Video: Provides an overview of the Autel MX-Sensor, highlighting its dual-frequency capability, interchangeable valve stems, lightweight design, and a 24-month or 24,000-mile warranty against manufacturing defects.

SUPPORT

For further assistance, technical support, or inquiries regarding your Autel MX Sensor, please visit the official Autel website or contact their customer service. You can also find additional resources and training videos on their platforms.

- **Official Website:** www.autel.com
- **Amazon Store:** [Autel Store on Amazon](#)