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› STEEL MATE Universal Wireless Tire Pressure Monitoring System User Manual

STEEL MATE 0794832619690

STEEL MATE Universal Wireless Tire Pressure Monitoring System User Manual

Model: 0794832619690

1. INTRODUCTION

The STEEL MATE Universal Wireless Tire Pressure Monitoring System (TPMS) is designed to enhance driving safety by providing real-time monitoring of your vehicle's tire pressure and temperature. This system utilizes external sensors and a compact monitor that plugs into your car's cigarette lighter socket, displaying critical tire data and alerting you to abnormal conditions.

2. PACKAGE CONTENTS

Please verify that all items are present in the package:

- 1 x TPMS Monitor (Cigarette Lighter Plug)
- 4 x External Tire Pressure Sensors
- 1 x Sensor Installation Wrench
- 4 x Anti-theft Nuts
- 4 x Rubber Gaskets (for sensors)



Image 2.1: Complete package contents of the STEEL MATE TPMS.

3. PRODUCT FEATURES

- **Cigarette Lighter Power:** Conveniently powers the monitor directly from your vehicle's cigarette lighter socket. Includes a 5V/1A USB charging output.
- **Real-time Display:** The single-color LCD screen displays real-time tire pressure and temperature for all four tires.
- **Seven Alarm Modes:** Provides alerts for fast leak, high pressure, low pressure, high temperature, sensor low voltage, and sensor fault.
- **User-Set Alarm Values:** Customizable pressure (1.6~3.5 Bar / 23~50 PSI) and temperature alarm thresholds. Supports Bar/PSI and °C units.
- **External Sensors:** Four advanced external sensors with low power consumption (CR1632 battery, up to 1 year life) and long working life (up to 3 years).
- **Wide Measurement Range:** Sensors measure 0~5.2 Bar / 0~75 PSI with an accuracy of ± 3 PSI.
- **All-Weather Durability:** Sensors are designed to withstand various environmental conditions.

STEELMATE®
Automotive

TPMS with USB slot

For 4WD & Passenger Vehicles

Wireless Transmission



Image 3.1: The TPMS monitor in use, showing real-time tire data.



Image 3.2: The TPMS monitor featuring a convenient USB charging port.

ALL-WEATHER ADOPTION

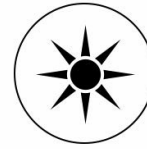


Image 3.3: TPMS sensors are designed for all-weather adoption.

4. COMPONENT IDENTIFICATION

4.1 Monitor

The monitor unit plugs into your vehicle's cigarette lighter socket and displays tire information. It features a screen, a SET button, and a USB charging port.



Image 4.1: Monitor component identification.

4.2 External Sensors

The four external sensors are installed on the tire valve stems. Each sensor is labeled (e.g., FL for Front Left, FR for Front Right, RL for Rear Left, RR for Rear Right) to ensure correct placement and data transmission.



Image 4.2: External tire pressure sensors.

5. SETUP INSTRUCTIONS

Follow these steps to install and set up your TPMS:

1. **Install the Monitor:** Insert the TPMS monitor into your vehicle's 12V cigarette lighter socket. Ensure it is securely seated and powers on.
2. **Prepare for Sensor Installation:** For each tire, unscrew the original valve cap.
3. **Install Anti-theft Nuts:** Screw an anti-theft nut onto each valve stem, but do not tighten it yet.
4. **Install Sensors:** Screw the corresponding external sensor (e.g., FL sensor on the front left tire) onto the valve stem until it is hand-tight. Ensure the rubber gasket is properly seated to prevent air leakage.
5. **Secure Sensors:** Use the provided wrench to tighten the anti-theft nut against the sensor. This prevents the sensor from being easily removed.
6. **Pairing (Automatic):** The sensors are pre-paired with the monitor. Once installed and the vehicle is in motion, the monitor should automatically display tire pressure and temperature data. If pairing issues occur, refer to the troubleshooting section or contact customer service.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off

The monitor powers on automatically when inserted into the cigarette lighter socket and the vehicle's ignition is on. It will power off when the ignition is turned off or the monitor is removed.

6.2 Display Information

The LCD screen displays the following information:

- Individual tire pressure for all four tires.
- Individual tire temperature for all four tires.
- Warning indicators for abnormal conditions.
- Battery status for the sensors.

6.3 Setting Alarm Values

To customize alarm thresholds:

1. Press and hold the **SET** button until the setting mode is activated (usually indicated by a flashing value on the screen).
2. Use the **SET** button to cycle through different settings (e.g., high pressure, low pressure, high temperature).
3. While a value is flashing, press the **SET** button repeatedly to adjust the value up or down.
4. Once the desired value is set, wait a few seconds for the system to save the setting and exit the setting mode automatically.

Note: The pressure setting range is 1.6~3.5 Bar / 23~50 PSI. You can also switch between Bar/PSI for pressure and °C for temperature.

7. ALARM FUNCTIONS

The system provides visual and audible alarms for various tire conditions:

- **Fast Leak Alarm:** Alerts you to a rapid loss of tire pressure.
- **High Pressure Alarm:** Activates if tire pressure exceeds the set high limit.
- **Low Pressure Alarm:** Activates if tire pressure falls below the set low limit.
- **High Temperature Alarm:** Alerts if tire temperature exceeds the set high limit.
- **Sensor Low Voltage Alarm:** Indicates that a sensor's battery is low and needs replacement.
- **Sensor Fault Alarm:** Signals a malfunction or loss of signal from a sensor.
- **Real-time Pressure Monitoring:** Continuous display of tire pressure.
- **Vehicle Battery Voltage Monitoring:** The monitor may also display the vehicle's battery voltage.



Image 7.1: Visual representation of alarm types.

8. MAINTENANCE

8.1 Sensor Battery Replacement

The external sensors use CR1632 button cell batteries. When a 'Sensor Low Voltage Alarm' occurs, replace the battery:

1. Unscrew the anti-theft nut and remove the sensor from the valve stem.
2. Carefully open the sensor casing (refer to sensor design for specific opening method, usually by twisting or prying gently).
3. Remove the old CR1632 battery and insert a new one, ensuring correct polarity.
4. Close the sensor casing securely and re-install the sensor on the tire valve stem, following the installation steps in Section 5.

Note: Sensor batteries typically last for more than 1 year, up to 3 years maximum.

8.2 General Care

- Keep the monitor and sensors clean. Wipe with a soft, dry cloth.

- Avoid exposing the monitor to extreme temperatures or direct sunlight for prolonged periods when not in use.
- Ensure the cigarette lighter socket is clean and free of debris for proper connection.

9. TROUBLESHOOTING

If you encounter issues with your TPMS, refer to the following common problems and solutions:

- **Monitor Not Powering On:**
 - Check if the cigarette lighter socket is functioning (test with another device).
 - Ensure the monitor is fully inserted into the socket.
 - Check vehicle's fuse for the cigarette lighter socket.
- **No Tire Data Displayed / Sensor Fault Alarm:**
 - Ensure all sensors are correctly installed and tightened.
 - Drive the vehicle for a short distance (e.g., 5-10 minutes) to allow sensors to transmit data.
 - Check if the sensor battery is low (replace if necessary, refer to Section 8.1).
 - Verify that the correct sensor is on the correct tire position.
 - If a specific sensor consistently fails, it may be faulty. Contact customer service for replacement.
- **Inaccurate Readings:**
 - Ensure tires are inflated to the correct pressure using a reliable gauge, then compare with TPMS readings. A slight deviation (within ± 3 PSI) is normal.
 - Re-check sensor installation for any air leaks.
- **Alarm Sounds Frequently:**
 - Review your set alarm thresholds (high/low pressure, high temperature) and adjust them if they are too sensitive for your driving conditions or tire specifications.

If problems persist after attempting these solutions, please contact STEEL MATE customer support.

10. SPECIFICATIONS

Brand	STEEL MATE
Model Number	0794832619690 (AA-SM-TP-77)
Monitor Dimensions (L x W x H)	15 x 12 x 6 cm (approximate package dimensions)
Material	Plastic
Measurement Accuracy	± 3 PSI
Pressure Range	0 - 5.2 Bar / 0 - 75 PSI
Sensor Battery Life	CR1632, >1 year (up to 3 years maximum)
Output Type	Digital
USB Output	5V/1A
Specific Uses	Automotive

11. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your purchase or contact the seller/manufacture directly. Keep your proof of purchase for warranty claims.

