

MR507743, J5T25178

## Generic Engine Crank Sensor Instruction Manual

For Mitsubishi L300 Models (OEM: MR507743, J5T25178)

### 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Generic Engine Crank Sensor. This sensor is a critical component in your vehicle's engine management system, designed to accurately monitor crankshaft position and speed, ensuring optimal engine performance and fuel efficiency.

### 2. PRODUCT OVERVIEW

The Engine Crank Sensor (OEM: MR507743, J5T25178) is an automotive component responsible for detecting the rotational speed and position of the engine's crankshaft. This information is vital for the Engine Control Unit (ECU) to precisely control fuel injection and ignition timing. The sensor typically consists of a magnetic pickup or Hall effect sensor, a wiring harness, and a connector for integration into the vehicle's electrical system.



Figure 2.1: Main view of the Engine Crank Sensor with its wiring and connector.



Figure 2.2: Angled view of the sensor, showing the mounting points.



Figure 2.3: View of the sensor's electrical connector pins.

### 3. COMPATIBILITY

This crankshaft position sensor is specifically designed for various Mitsubishi L300 models. Refer to the following list to confirm compatibility with your vehicle:

- Mitsubishi L300 P03V
- Mitsubishi L300 P03W
- Mitsubishi L300 P04V

- Mitsubishi L300 P13V
- Mitsubishi L300 P13W
- Mitsubishi L300 P14V
- Mitsubishi L300 P14W

Please verify the OEM part numbers (MR507743, J5T25178) against your existing sensor or vehicle specifications to ensure correct fitment.

## 4. INSTALLATION

Proper installation of the crankshaft position sensor is crucial for its correct function. Follow these steps carefully:

1. **Diagnose Fault Code:** Before beginning, diagnose any existing fault codes to confirm the sensor's location and verify it is the faulty component.
2. **Disconnect Wiring:** Locate the faulty sensor and carefully unplug its electrical connector from the vehicle's wiring harness.
3. **Remove Old Sensor:** Unbolt and remove the old crankshaft position sensor from its mounting location.
4. **Install New Sensor:** Position the new sensor and secure it with the appropriate fasteners. Ensure it is seated correctly.
5. **Connect Wiring:** Plug the new sensor's electrical connector firmly into the vehicle's wiring harness.
6. **Clear Fault Codes:** After installation, use a diagnostic tool to clear any stored fault codes from the ECU.

No special tools, calibration, programming, or modification should be required for this direct replacement.

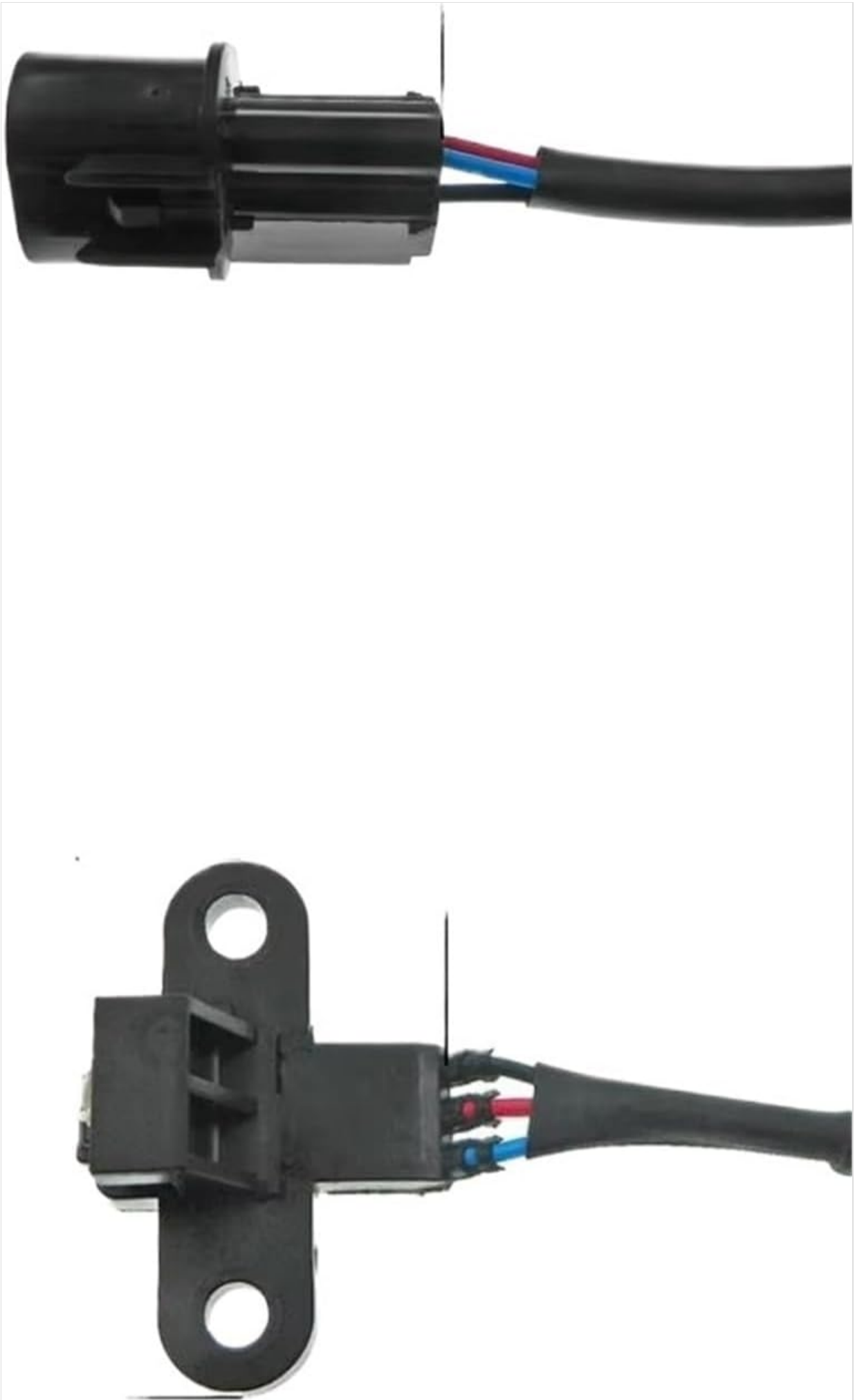


Figure 4.1: Close-up view of the sensor head and connector for installation reference.

## 5. OPERATING PRINCIPLES

The crankshaft position sensor operates by detecting the rotation of a reluctor wheel or tone ring attached to the crankshaft. As the crankshaft rotates, the sensor generates electrical pulses that are sent to the Engine Control Unit (ECU). The ECU uses these signals to:

- Determine engine speed (RPM).
- Identify the precise position of the pistons within the cylinders.
- Synchronize ignition timing and fuel injection events.

Accurate signals from this sensor are essential for the engine's performance, fuel efficiency, and emission control.

## 6. MAINTENANCE

The Generic Engine Crank Sensor is a sealed unit and does not require routine maintenance or lubrication. It is designed for long-term reliability under normal operating conditions. If the sensor malfunctions, it should be replaced as a complete unit.

## 7. TROUBLESHOOTING

If you experience engine performance issues that you suspect are related to the crankshaft position sensor, consider the following:

- **Diagnostic Trouble Codes (DTCs):** Use an OBD-II scanner to check for specific DTCs related to the crankshaft position sensor (e.g., P0335, P0336).
- **Symptoms:** Common symptoms of a faulty sensor include difficulty starting, engine misfires, rough idling, stalling, or a sudden loss of power.
- **Visual Inspection:** Check the sensor and its wiring for any visible damage, corrosion, or loose connections.

If a fault code indicates a problem with the crankshaft position sensor, replacement is typically the recommended solution.

## 8. SPECIFICATIONS

| Attribute                | Detail             |
|--------------------------|--------------------|
| Brand                    | Generic            |
| Manufacturer             | GSALSM             |
| OEM Part Numbers         | MR507743, J5T25178 |
| Manufacturer Part Number | 6548768673837      |
| Placement                | Crankshaft         |
| Material                 | Reliable materials |

## 9. SAFETY INFORMATION

Observe the following safety precautions during handling and installation:

- **Avoid High Places:** Do not place the sensor at a high location where it could fall and be damaged.
- **Electrical Safety:** Always disconnect the vehicle's battery before working on electrical components to prevent electrical shock or damage to the vehicle's systems.
- **Professional Installation:** If you are unsure about the installation process, it is recommended to seek assistance from a qualified automotive technician.


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|--|---|
| <p>Model: piqingzhong<br/> Brand: ZXDRYIRC<br/> Production Batch No: 250709A236<br/> Production Date: 2025/07/09<br/> Country Origin: Made in China</p>  | <p>Manufacturer: guizhouyuanqingzhichuangkejiyouxiangongsi<br/> Address: guizhoushengqiandongnanmiaozudongzuzhizhoukailishichengxijiedaoyinguidadaoweilaichengA2dikuaihengshizhimenBdongxiezilou22ceng18hao<br/> Manufacturer Email: Pqz15121448384@163.com</p> |
| <p><b>EC REP</b></p>   | <p>Name: guizhouyuanqingzhichuangkejiyouxiangongsi<br/> Address: guizhoushengqiandongnanmiaozudongzuzhizhoukailishichengxijiedaoyinguidadaoweilaichengA2dikuaihengshizhimenBdongxiezilou22ceng18hao<br/> Email: Pqz15121448384@163.com</p>                      |
| <p><b>FR</b><br/> ÉLÉMENTS D'EMBALLAGE À SÉPARER ET À DÉPOSER DANS LE BAC DE TRI</p>   |   |
| <p>⚠ UK Please do not place at a high place to avoid falling<br/> ⚠ DE Bitte nicht an einer hohen Stelle platzieren, um Stürze zu vermeiden<br/> ⚠ FR Ne pas placer l'appareil en hauteur pour éviter qu'il ne tombe.<br/> ⚠ IT Non posizionarlo in alto per evitare cadute.<br/> ⚠ ES No lo coloques en un lugar alto para evitar caídas.<br/> ⚠ NL Niet op een hoge plek plaatsen om vallen te voorkomen.<br/> ⚠ BE Niet op een hoge plek plaatsen om vallen te voorkomen.<br/> ⚠ SE Placera inte på en hög plats för att undvika att falla.</p> |   |

Figure 9.1: Product packaging label, including multilingual safety warnings.

## 10. SUPPORT

For any questions, concerns, or issues regarding your Generic Engine Crank Sensor, please contact the seller or manufacturer. We are committed to providing assistance and support to ensure your satisfaction.

