Standard Motor Products TH70

Standard Motor Products TH70 Throttle Position Sensor User Manual

Model: TH70

Introduction

This manual provides essential information for the proper installation, operation, maintenance, and troubleshooting of your Standard Motor Products TH70 Throttle Position Sensor. Please read this manual thoroughly before installation and keep it for future reference.

Product Overview

The Standard Motor Products TH70 is a high-quality Throttle Position Sensor (TPS) designed for automotive applications. A TPS is a crucial component in modern fuel-injected engines, responsible for monitoring the throttle valve's position and sending this data to the engine control unit (ECU).
Key features of the TH70 include:

- Direct replacement for original equipment.
- Constructed with durable materials for reliable performance.
- Designed to meet or exceed OEM specifications.

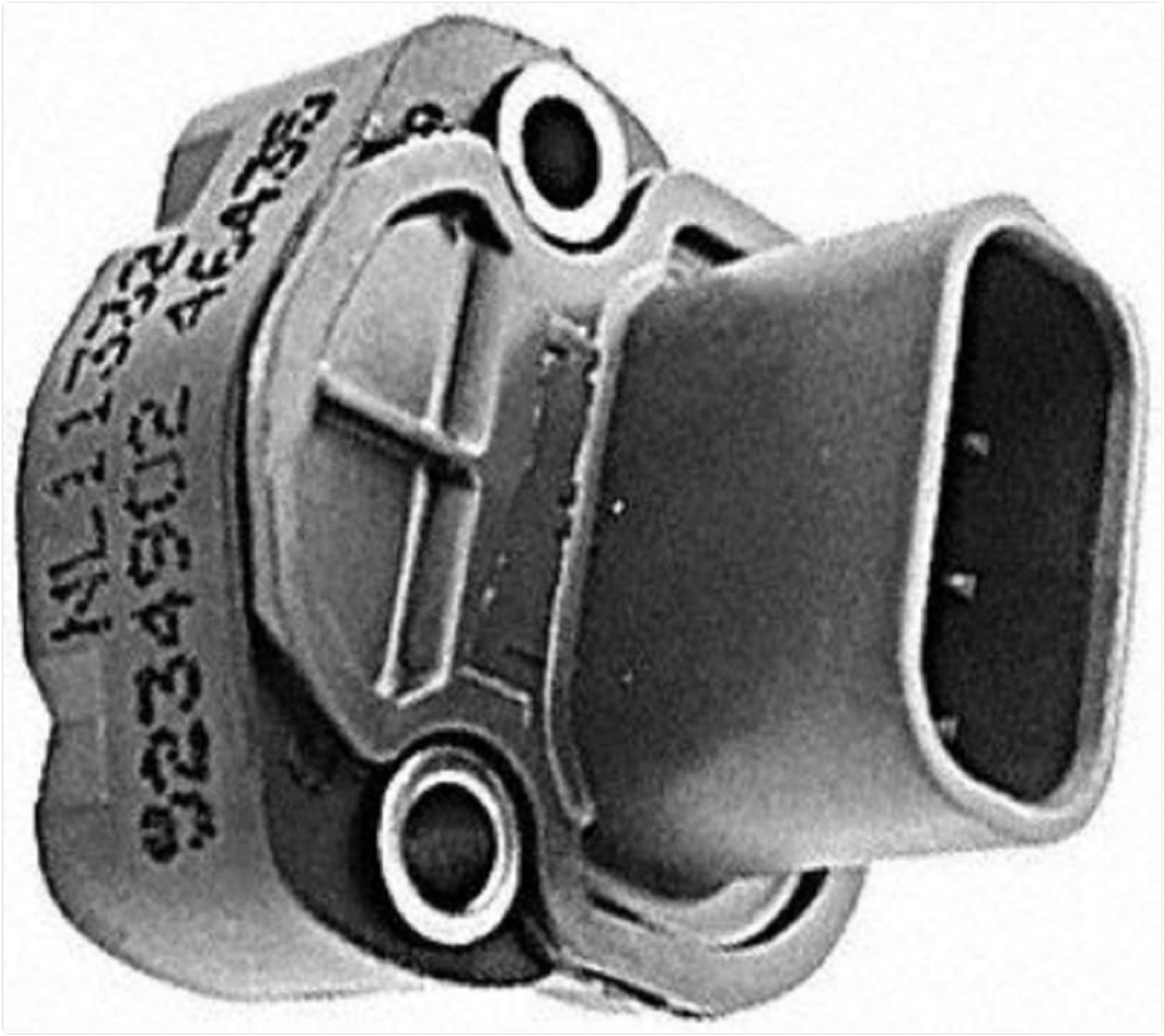

Figure 1: The Standard Motor Products TH70 Throttle Position Sensor. This image displays the grey sensor unit with its distinct rectangular electrical connector and two circular mounting points.

Setup and Installation

Installation of the TH70 Throttle Position Sensor typically involves replacing an existing sensor. It is recommended that installation be performed by a qualified automotive technician.

Safety Precautions:

- Always disconnect the vehicle's battery before beginning any electrical work.
- Ensure the engine is cool before working on engine components.
- Wear appropriate personal protective equipment, such as gloves and eye protection.

General Installation Steps:

1. Locate the existing Throttle Position Sensor on the throttle body.
2. Carefully disconnect the electrical connector from the old sensor.
3. Remove the mounting screws or bolts securing the old sensor.
4. Remove the old sensor. Note its orientation for proper installation of the new sensor.
5. Install the new TH70 sensor, ensuring it is correctly aligned with the throttle shaft.

6. Secure the new sensor with the mounting screws or bolts. Do not overtighten.
7. Reconnect the electrical connector to the new sensor. Ensure a secure connection.
8. Reconnect the vehicle's battery.
9. Perform any necessary ECU relearn procedures as specified by the vehicle manufacturer.

Operating Instructions

The TH70 Throttle Position Sensor operates automatically as part of the vehicle's engine management system. Once installed and the vehicle's ECU has recognized the new sensor, it will continuously monitor the throttle plate's angle. This information is then used by the ECU to calculate fuel delivery, ignition timing, and other engine parameters, ensuring optimal engine performance and fuel efficiency.
There are no user-adjustable settings for the TH70 sensor. Its operation is entirely dependent on the vehicle's design and the ECU's programming.

Maintenance

The Standard Motor Products TH70 Throttle Position Sensor is designed for long-term, maintenance-free operation. However, general automotive maintenance practices can help ensure its longevity:

- **Regular Inspections:** During routine vehicle maintenance, visually inspect the sensor and its wiring for any signs of damage, corrosion, or loose connections.
- **Cleanliness:** Keep the area around the throttle body and sensor free from excessive dirt, oil, and debris. Avoid spraying harsh chemicals directly onto the sensor.
- **Wiring Integrity:** Ensure that the wiring harness connected to the sensor is not frayed, pinched, or otherwise damaged.

No periodic replacement or lubrication is required for the sensor itself.

Troubleshooting

A faulty Throttle Position Sensor can lead to various engine performance issues. If you suspect a problem with your TH70 sensor, consider the following common symptoms and basic diagnostic steps:

Common Symptoms of a Faulty TPS:

- Rough idle or stalling.
- Hesitation or surging during acceleration.
- Poor fuel economy.
- Check Engine Light (CEL) illumination with related diagnostic trouble codes (DTCs) such as P0120, P0121, P0122, P0123, P0124.
- Transmission shifting issues (in automatic transmissions).

Basic Diagnostic Steps:

1. **Check for DTCs:** Use an OBD-II scanner to retrieve any stored diagnostic trouble codes. This is often the first step in diagnosing engine issues.
2. **Visual Inspection:** Inspect the sensor and its wiring for any obvious physical damage, corrosion, or loose connections.
3. **Voltage Check (Advanced):** With the ignition on and engine off, use a multimeter to check the voltage output of the TPS as the throttle is slowly opened and closed. The voltage should increase smoothly without drops or spikes. Consult your vehicle's service manual for specific voltage ranges.

4. **Resistance Check (Advanced):** Disconnect the sensor and check its resistance across the terminals while manually moving the throttle. The resistance should change smoothly.

If these steps indicate a faulty sensor, replacement may be necessary. If you are unsure about performing these diagnostics, consult a professional mechanic.

Specifications

Attribute	Value
Part Number	TH70
Brand	Standard Motor Products
Model	Throttle Position Sensor
Country of Origin	China
Material	Platinum
Item Dimensions (L x W x H)	3 x 2 x 5 inches
Package Dimensions (L x W x H)	8.89 L x 5.08 W x 3.302 H Centimeters
Item Weight	1.34 ounces
Package Weight	0.100 Pounds
Mounting Type	Plug Mount
Output Type	Push-Pull
UPC	091769098612

Warranty and Support

For specific warranty information regarding your Standard Motor Products TH70 Throttle Position Sensor, please refer to the documentation provided with your purchase or visit the official Standard Motor Products website. Warranty terms and conditions may vary.

For technical support or further assistance, please contact Standard Motor Products directly through their official customer service channels. Always provide your product model number (TH70) and any relevant vehicle information when seeking support.