



## Product Overview

# MAP SENSORS

- Holstein Parts Manifold Absolute Pressure Sensors (MAP sensors) offer superior coverage for Import / Domestic applications
- Holstein Parts uses only the highest quality materials, manufactured to exacting standards to provide long term function and performance
- Sealed Anti-Static Protective Packaging ensures that electrical components are not damaged during shipping

## OVERVIEW

The Manifold Absolute Pressure Sensor (MAP sensor) is one of the sensors used in a vehicle's electronic control system (ECU). Engines that use a MAP sensor are typically fuel injected. The MAP Sensor provides instantaneous manifold pressure information to the engine's computer (ECU). The data is used to calculate air density and determine the engine's air mass flow rate, which determines the required fuel metering for optimum combustion and influences the advance or retard of the ignition timing. A faulty MAP Sensor can cause a vehicle to run rich or lean, which will affect the vehicle's ignition timing and cause the engine not to run smoothly.

- Holstein Parts uses only the highest quality materials and engineering for parts that are truly built to match or exceed the OE part
- Holstein Parts MAP Sensors offer superior coverage for Import / Domestic applications
- 3 Year / 36,000 Mile Warranty



# MAP SENSORS

## **What does the Manifold Absolute Pressure Sensor do?**

The sensor provides instant manifold pressure information to the engine's electronic control unit. The data is used to calculate air density and determine the engine's air mass flow rate, which in turn determines the required fuel delivery for perfect combustion.

## **Where is the Manifold Absolute Pressure Sensor Located?**

The MAP sensor is typically located on the intake manifold, either next to or on the throttle body itself. (On a forced-induction engine, the MAP sensor can be found on the intake tract before the turbo.

## **Will a malfunctioning Manifold Absolute Pressure Sensor cause a check engine light?**

Signs of a Broken MAP Sensor. MAP sensor problems could trigger a DTC and check engine light.

## **What are the common causes of failure?**

MAP sensors fail by getting clogged, contaminated, or damaged. Sometimes, engine heat "overcooks" the MAP sensor's electronics or cracks vacuum lines.

## **How to determine if a Manifold Absolute Pressure Sensor is failing?**

- Excessive fuel consumption. A MAP sensor that measures high intake manifold pressure indicates high engine load to the PCM.
- Lack of power. A MAP sensor that measures low intake manifold pressure indicates low engine load to the PCM.
- Failed emissions test.

