P0100 MERCEDES-BENZ
Mass Air Flow Sensor

Symptoms

- Engine Light ON (or Service Engine Soon Warning Light)
- Engine stall
- Engine running rough
- Excessive fuel consumption
- Excessive smoke

Possible causes

- Faulty mass air flow sensor
- Intake air leaks
- Dirty mass air flow sensor
- Dirty mass air filter
- Mass air flow sensor harness is open or shorted
- Mass air flow sensor circuit poor electrical connection

Tech notes

Before replacing the mass air flow sensor, try replacing the air filter and cleaning the air flow sensor with low compress air or mass air flow sensor cleaner. Reset code and drive vehicle. If the code comes back, it may be necessary to replaced the mass air flow sensor.

Description

The Mass Air Flow (MAF) sensor is placed in the stream of intake air. It measures the intake flow rate by measuring a part of the entire intake flow. It consists of a hot film that is supplied with electric current from the Engine Control Module (ECM).The temperature of the hot film is controlled by the ECM a certain amount. The heat generated by the hot film is reduced as the intake air flows around it. The more air, the greater the heat loss. Therefore, the ECM must supply more electric current to maintain the temperature of the hot film as air flow increases. The ECM detects the air flow by means of this current change.

When is the code detected?

- A high voltage from the sensor is sent to Engine Control Module (ECM) under light load driving condition. - A low voltage from the sensor is sent to ECM