

Lambda Sensors

Overview, features and benefits

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BOSCH
Invented for life



- ▶ Original equipment product
- ▶ Each unit is tested at full operating temperature
- ▶ Provides optimum fuel economy and emissions performance

A new original equipment lambda sensor can provide up to 15% savings in fuel consumption compared to a part that has reached its replacement interval

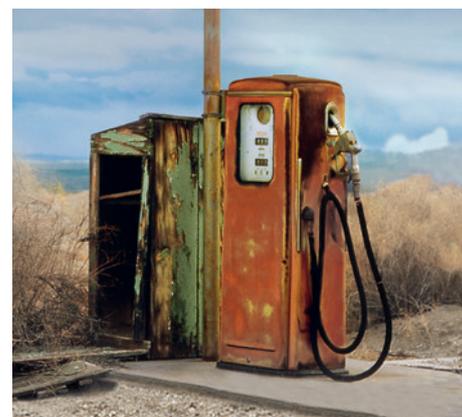
	Old lambda sensor	New Lambda Sensor
Annual mileage	11,000	11,000
Average fuel consumption	30 mpg	34.5 mpg
Annual fuel consumption (litres)	1,456	1,260
Price per litre*	£1.20	£1.20
Annual fuel costs	£1,747.20	£1,512.00
Annual fuel saving	-	£235.20

* Based on average petrol price March 2017

Although not strictly a service item the Lambda sensor does have a defined service life and its efficiency will gradually deteriorate over time

Key reasons for replacing lambda sensors

The lambda sensor is a key component of a vehicle's engine management system and also prevents damage to the catalytic converter. Only if the sensor is working perfectly will the engine be able to operate at its full efficiency and keep exhaust emissions below strict limits.



Over £230 fuel saving per year!

Disadvantages of an old sensor

- ▶ It will not measure the level of oxygen in the exhaust gases correctly
- ▶ Increased fuel consumption
- ▶ Poor engine performance
- ▶ Poor exhaust emissions
- ▶ Damage to catalytic converter



Advantages of a new sensor

- ▶ Fuel savings of up to 15%
- ▶ Increased engine power
- ▶ Better for the environment
- ▶ Longer operating life of catalytic converter

An original equipment quality lambda sensor is essential to deliver optimum fuel economy and emissions performance.

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The dark coloured protective tube is tested to 1,000°C

Sensor body is stainless steel, laser welded and watertight

Patented double protection layer on sensor ceramic for precise operation

Conductive anti-seize compound is pre-applied to sensor thread



Why does my new Bosch lambda sensor look used?

Don't worry, they're not used! Part of the quality process during production is for each and every Bosch lambda sensor to be tested at full operating temperature before it leaves the factory. That is why each one has the heat tarnish on the unit.



The accuracy of the lambda sensor is critical to providing efficient engine performance

The lambda sensor measures the oxygen content in the exhaust gases and converts this into an electrical signal for the engine management ECU. The ECU will then adapt the air/fuel mixture accordingly to ensure optimal engine performance and reduce the vehicle's emissions.

The lambda sensor* control is mounted in the exhaust as near to the engine as possible.

*This is typical of a control lambda sensor position.

New technology:

Wide band Lambda sensors measure exhaust oxygen content in a range outside of $\lambda=1$ (as the traditional switching sensors do). This makes them suitable for diesel and other lean burn engines



Lambda sensor summary:

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- ▶ Provides optimum fuel economy and emissions performance