

The World Leader in Oxygen Sensor Technology

Even though oxygen sensors have been standard equipment on most vehicles since 1980, most people don't know much about them. Bosch does.

Bosch is the inventor of the automotive oxygen sensor and the number one choice of car makers around the world. From the first unheated thimble type sensors to today's revolutionary heated planar and wide-band sensors, Bosch continues to lead the way in oxygen sensor technology and innovation.

It's no surprise that Bosch Premium Oxygen Sensors are chosen by more car makers and automotive do-it-yourselfers worldwide. Make Bosch Premium Oxygen Sensors your choice for quality and performance.

Universal Heated Sensors

Bosch Universal Heated Oxygen Sensors are designed for ease of installation. They feature a revolutionary Bosch patented submersible connection system which protects against contamination and withstands extreme temperatures and engine vibration.

Bosch patented universal connection system



What is an oxygen sensor?

An oxygen sensor detects the amount of oxygen in a vehicle's exhaust gases and sends a signal to the engine computer (ECM), which adjusts the air/fuel mixture to the optimal level.

Too much oxygen in the exhaust gases indicates a lean mixture, which can cause performance problems, including misfire. Too little oxygen indicates a rich mixture, which wastes fuel and results in excess emissions. Either condition can shorten the life of the catalytic converter.

Almost all gasoline powered vehicles newer than 1986 have at least one oxygen sensor, and 1996 and newer vehicles have at least two oxygen sensors.

Not only are properly functioning oxygen sensors good for the environment, but they can save money in fuel costs, too.

Replacing a worn-out oxygen sensor will do more than improve your vehicle's performance and reduce harmful exhaust emissions. It can save over \$100 a year in gasoline costs.

	Worn out O2 sensor	New O2 sensor
Miles driven	12,000	12,000
Miles/gallon*	18.0	20.0
Gallons of gas	666.7	600.0
Cost/gallon	\$2.00	\$2.00
Total gasoline cost	\$1,334	\$1,200
SAVINGS PER YEAR		\$134
After 30,000–50,000 miles		\$335–\$558
After 60,000–100,000 miles		\$670–\$1,117

*Fuel Efficiency: Assumes miles/gallon improvement of 10% (pre OBDII vehicles).

Trust the experience of Bosch

Bosch invented the automotive oxygen sensor and has manufactured 400 million sensors since 1976. Today it is the world's largest producer of oxygen sensors and currently supplies them to virtually all vehicle manufacturers in the world.



Premium Oxygen Sensors



Bosch
Performance

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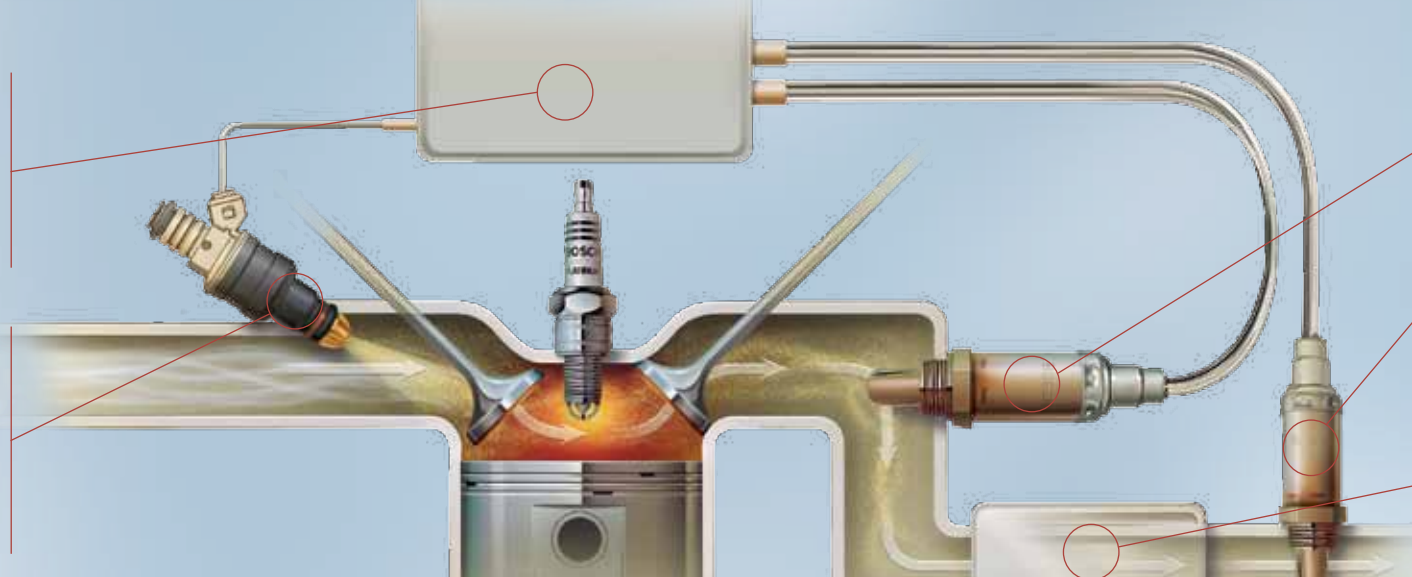


Engine Computer (ECM)

Based primarily on the oxygen sensor's signal, the ECM sends a signal to the fuel injectors (or feedback carburetor, if so equipped).

Injector

Based on the ECM's signal, just the right amount of fuel is delivered to the combustion chamber, resulting in the optimal air/fuel mixture.



Oxygen Sensor

This oxygen sensor monitors the oxygen content of the vehicle's exhaust gases and sends a voltage signal to the ECM.

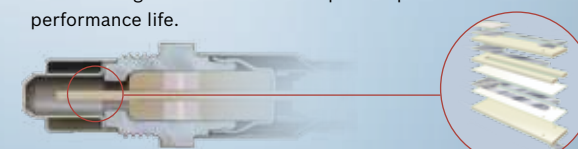
Oxygen Sensor

An "OBDII" oxygen sensor is required on 1996 and newer vehicles to monitor the performance of the catalytic converter.

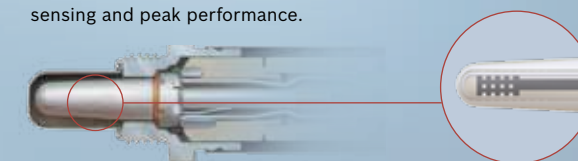
Catalytic Converter

Without the proper air/fuel mixture, the converter cannot eliminate harmful pollutants from the exhaust gases.

Premium Planar Type Sensors reach operating temperature in half the time of thimble type sensors, reducing emissions by over 50% during the cold start phase. The multi-layer sensor element with an integrated heater delivers precise performance over a long performance life.



Premium Thimble Type Sensors feature the Bosch patented Platinum Power Grid made with more platinum for optimized sensing and peak performance.



Tune-up for Lower Emissions and Greater Fuel Economy

Bosch Premium Oxygen Sensors

When to replace an oxygen sensor

Exposure to carbon, soot, harmful gases, anti-freeze, chemicals, and thermal and physical shock will shorten the life of an oxygen sensor. A worn sensor could result in reduced gas mileage, poor engine performance, and/or emissions test failure.

That's why checking, and if needed, replacing* a worn-out oxygen sensor with a Bosch Premium Oxygen Sensor is an important part of every routine tune-up.

A worn-out oxygen sensor:

Wastes fuel

Can cause engine performance problems, such as surging and hesitating

Is the number one cause of excessive harmful exhaust emissions

Accelerates catalytic converter damage

Installing a Bosch Premium Oxygen Sensor

Saves money in fuel costs

Improves engine performance

Dramatically reduces harmful emissions

Prevents premature failure of the catalytic converter

Bosch Advanced Ceramic Technology

The heart of any oxygen sensor is the ceramic element. Bosch Premium Oxygen Sensors utilize a mix of zirconium and yttrium oxides and other elements to form a tough base that withstands the intense stress to which oxygen sensors are subjected. Each element is incredibly strong for best-in-class performance and maximum service life.



*Oxygen sensors with 1 or 2 wires typically wear out after 30,000–50,000 miles of use. Newer heated-type oxygen sensors with 3 or 4 wires typically wear out after 60,000–100,000 miles.