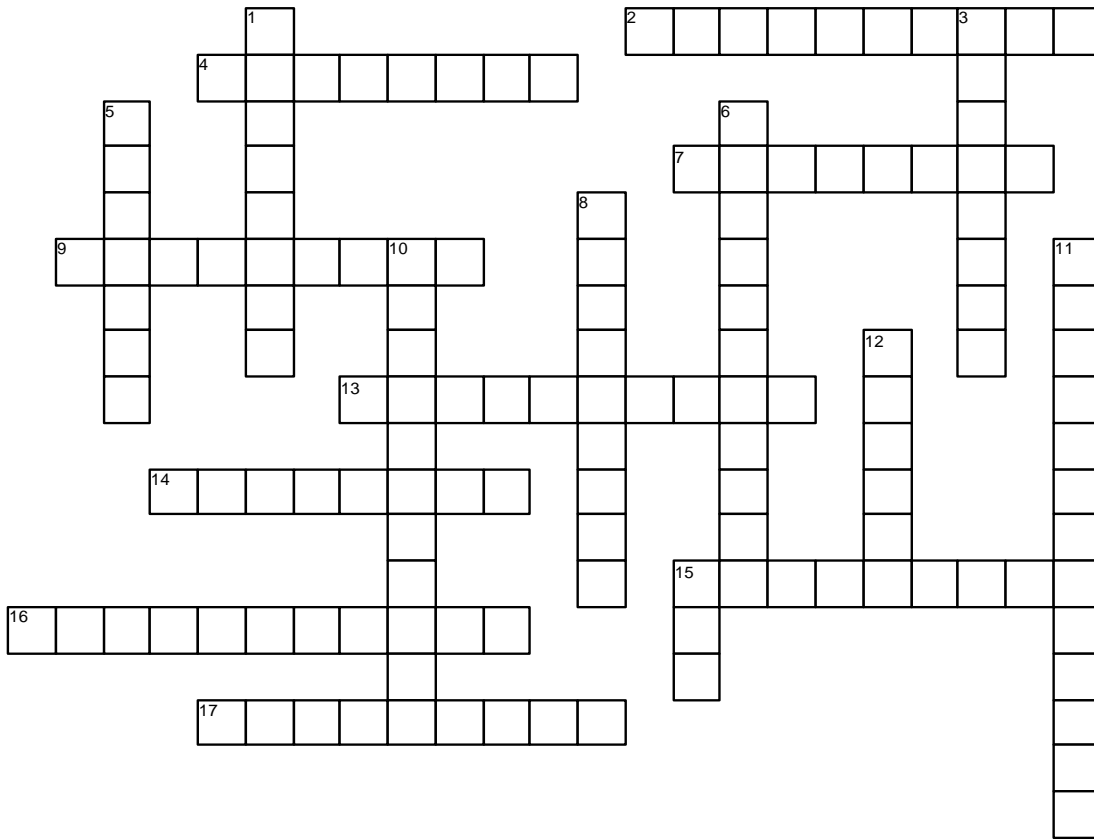


Oxygen Sensors

Chapter 78



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ACROSS

- 2 The checking and adjusting of the PCM is called _____-_____ operation.
- 4 The _____ numbers are determined from the signals by the oxygen sensor.
- 7 _____-_____ oxygen sensors have been used since 1992 on some Hondas.
- 9 If an oxygen sensor reads low as a result of a factor besides a lean mixture, it is often called a _____ indication.
- 13 A typical _____-_____ wide-band oxygen sensor looks similar to a conventional four-wire zirconia oxygen sensor.
- 14 A _____ oxygen sensor is made of zirconium dioxide, an electrically conductive material capable of generating a small voltage in the presence of oxygen.
- 15 Another name for the signal electrode is the _____ electrode.
- 16 _____ electrode is exposed to the exhaust stream.
- 17 When the O₂S reads high as a result of other factors besides a rich mixture, it is often called a _____ indication.

DOWN

- 1 A _____-_____, planar-type oxygen sensor is made like a conventional planar O₂S, or Nernst cell.
- 3 When the PCM alone is determining the amount of fuel needed, it is called _____-_____ operation.
- 5 The _____ oxygen sensor does not produce a voltage but rather changes resistance due to the presence of oxygen in the exhaust.
- 6 Some vehicle manufacturers such as GM have the PCM apply 450 mV to the O₂S signal wire, this voltage is called _____.
- 8 A zirconia oxygen sensor is often referred to as a _____.
- 10 _____ electrode is exposed to outside air and is the signal electrode.
- 11 Automotive computer systems use a sensor in the exhaust system to measure the oxygen content of the exhaust, these sensors are called _____.
- 12 In 1998, Bosch introduced a wide-band oxygen sensor that is flat and thin, known as a _____ design.
- 15 The wrong type of _____ sealer on a valve cover gasket gives off harmful silica fumes during the curing process.