

**Haynes**
shows you how**BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) Haynes Online Manual**

10 Oxygen sensors - replacement

1 On 2.0L engines there are two oxygen sensors: one upstream sensor (or “control sensor”) and one downstream sensor (or “monitor sensor”). The sensors are located at each end of the catalytic converter. The sensor closest to the turbocharger is the upstream sensor and the sensor closest to the exhaust pipe is the downstream sensor.

2 On 3.0L engine models, there are four oxygen sensors - two for each cylinder bank - on all models. Each upstream oxygen sensor (see illustration) is located below the exhaust manifold flanges and above the catalytic converter. Each downstream oxygen sensor (see illustration) is located in the exhaust pipe, behind the converter. These are also referred to as catalyst monitor sensors. Use special care when servicing an oxygen sensor:

10.2a On 3.0L engines, the upstream oxygen sensors are located in the exhaust manifold, close to the engine



10.2b On 3.0L engines, both downstream oxygen sensors are located in the exhaust pipes just behind the catalytic converters



- A. Oxygen sensors have a permanently attached pigtail and electrical connector that can't be removed from the sensor. Damage to or removal of the pigtail or the electrical connector will ruin the sensor.
- B. Keep grease, dirt and other contaminants away from the electrical connector and the louvered end of the sensor.
- C. Do not use cleaning solvents of any kind on an oxygen sensor or air/fuel ratio sensor.
- D. Do not drop or roughly handle an oxygen sensor or air/fuel ratio sensor.
- E. Be sure to install the silicone boot in the correct position to prevent the boot from melting and to allow the sensor to operate properly.

3 Disconnect the cable from the negative battery terminal (see [Chapter 5](#)).

4 Raise the vehicle and place it securely on jackstands.

5 To remove the right upstream sensor on some models, it may be necessary to remove the exhaust heat shield, which is retained by two bolts.

6 Disconnect the oxygen sensor electrical connector. Using an oxygen sensor socket, remove the oxygen sensor (see illustration 10.2a) . If the sensor is difficult to loosen, spray some penetrant onto the sensor threads and allow it to soak in for the period of time specified by the penetrant manufacturer.

Note:

The sensor harness shields are color coded. Black for upstream sensor ("control sensor") and grey for downstream sensor ("monitor sensor").

7 Apply a light coating of anti-seize compound to the threads of the new (or old) oxygen sensor to facilitate future removal. Do not get any anti-seize on the ceramic part of the sensor that goes into the pipe.

8 Installation is the reverse of removal. Be sure to tighten the sensor securely.