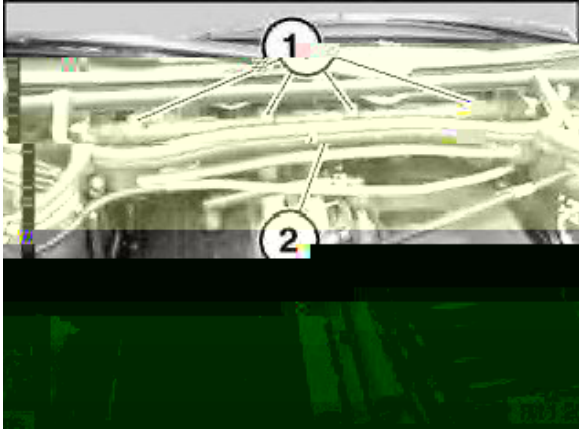


(for work step number 13 00 002)

Read out fault memory, clear if necessary.



**E46 only:**

Remove microfilter.

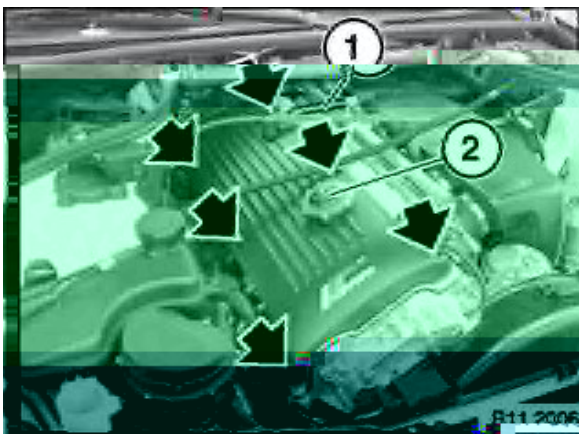
Open cable duct on lower section of microfilter housing (2) and feed out cable.

Release screws (1) and remove lower section of microfilter housing (2).



**E46 only:**

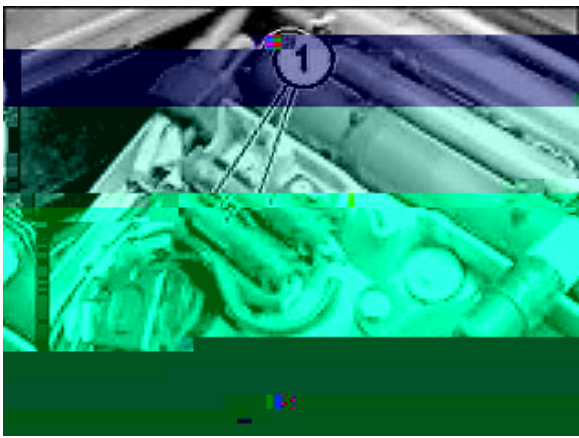
Lever out expansion rivets. Remove air duct (1).



Remove hose (1) for engine vent.

Remove sealing cap (2).

Remove ignition coil cover.



*Note:*

The plug housings of the oxygen sensors for cylinders 1 to 3 and 4 to 6 are different.

Unclip plug housing (1) from mounting.

Disconnect plug connections of oxygen sensors.



Feed oxygen sensor cables out of shield plate of exhaust manifold.

*Installation:*

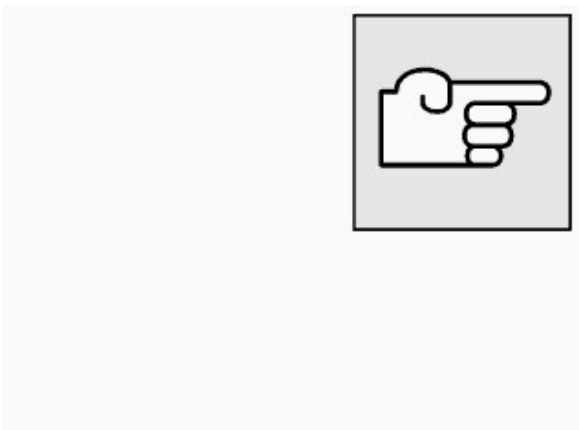
Clip cables of oxygen sensors into mounts on shield plate of exhaust manifold.

**Caution!**

Ensure cables are exactly routed.

*Note:*

Fig. shows US version.



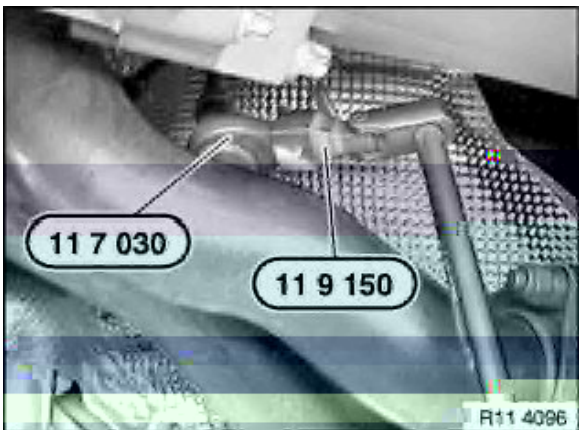
Remove underbody protection.

**E46 only:**

Remove reinforcement plate.

**Caution!**

The section "Removing and installing reinforcement plate" contains important installation instructions.

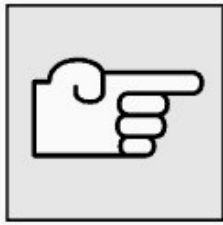


The oxygen sensors for cylinders 1 to 3 and 4 to 6 are different.

Mark oxygen sensors so as not to mix sensors up at a later stage.

Detach oxygen sensors with special tool 11 7 030 in conjunction with special tool 11 9 150.

1. Remove oxygen sensor from cylinders 1 to 3.
2. Remove oxygen sensor from cylinders 4 to 6.



*Installation:*

The threads of new oxygen monitor sensors are already coated with Never Seez Compound.

If an oxygen monitor sensor is used again, apply a thin and even coat of Never Seez Compound (refer to BMW Parts Service) to the thread only.

Do not clean that part of the oxygen sensor which projects into the exhaust system branch and do not allow it to come into contact with lubricants.



*Installation:*

When special tool 11 9 150 is used in conjunction with special tool 11 7 030, 47 Nm on the dial on the torque wrench corresponds to an actual tightening torque of 50 Nm.

For final tightening of oxygen sensors, fit torque wrench and special tool (11 7 030/11 9 150) as illustrated.

Tightening torque, 11 78 1AZ.

1. Install oxygen sensor for cylinders 4 to 6 and tighten down.
2. Install oxygen sensor for cylinders 1 to 3 and tighten down.

Cover oxygen sensors when applying underseal.

Pay attention to cable routing for oxygen sensors.