

P1009

Oxygen sensors behind catalytic converter interchanged - signal implausible

Diagnostic conditions

- Battery positive voltage between 10 V and 16 V
- Relatively long drive in various operating states
- Short test "Sensor replacement diagnosis after cat"

Possible cause of fault

- ♦ Oxygen sensors behind catalytic converter interchanged (i.e. the sensor for bank 1 is inserted in the exhaust assembly for bank 2 and vice versa)

Affected pins

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Diagnosis/troubleshooting



Note!

This fault only occurs in relation to V6 engines.



Warning!

Always observe the notes on possible dangers, the warning and caution notes as well as the general instructions in the introduction!!!



Note!

Do not use contact spray on the oxygen sensor plug connections, as this may cause irreparable damage to the wiring (blocking the reference air channels).

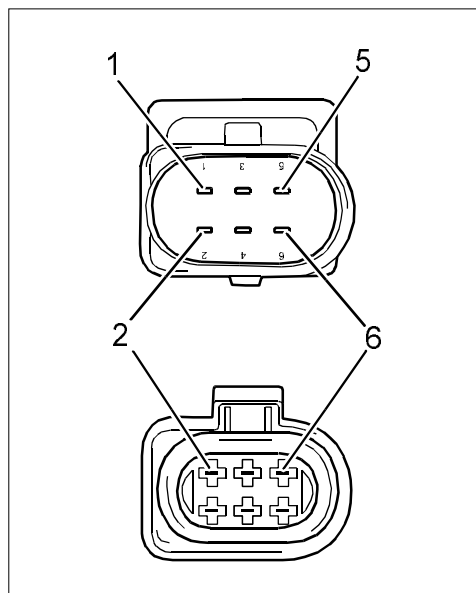


Note!

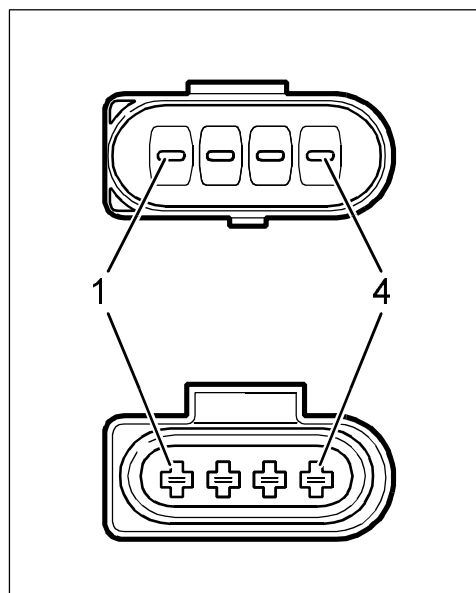
Do not confuse oxygen sensor ahead of catalytic converter and oxygen sensor behind catalytic converter as this will cause implausible fault entries.

Distinguishing feature of both sensors:

Oxygen sensor ahead of catalytic converter (LSU) has a six-pin connector ►



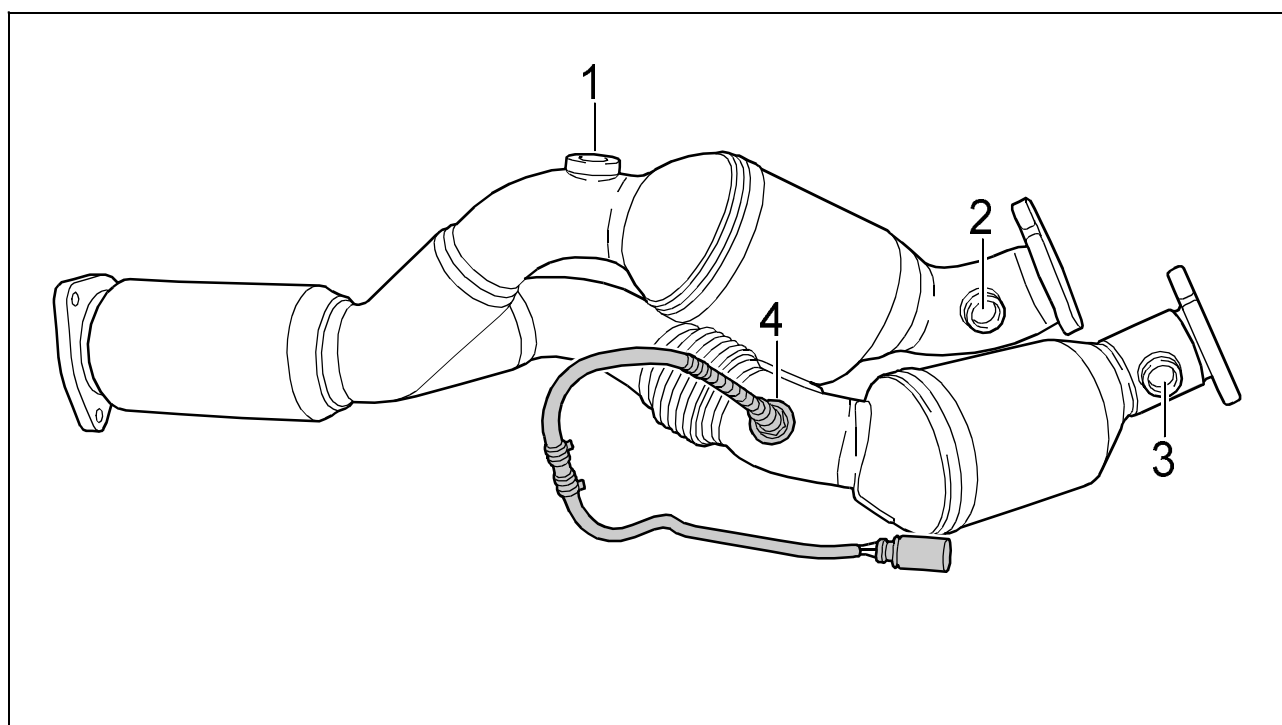
Oxygen sensor behind catalytic converter (LSF) has a four-pin connector ►



**Note!**

- ♦ During diagnostic procedures, the mixture on one bank is enriched, while the mixture on the other bank is more lean.
- ♦ This fault is detected if the oxygen sensor behind the catalytic converter indicates a leaner mixture on the enriched bank, and if the oxygen sensor behind the catalytic converter indicates a more enriched mixture on the lean bank.

Work instruction		Display OK	If not OK
1	Check whether oxygen sensors behind the catalytic converter were interchanged.	⇒ Step 2	Install oxygen sensors behind the catalytic converter correctly → End
2	Check whether additional faults have been recorded	Work through faults in accordance with instructions → End	

Arrangement of oxygen sensors for the V6 engine

- 1 - Installation position for oxygen sensor **BEHIND** catalytic converter, bank 2
- 2 - Installation position for oxygen sensor **AHEAD OF** catalytic converter, bank 2
- 3 - Installation position for oxygen sensor **AHEAD OF** catalytic converter, bank 1
- 4 - Installation position for oxygen sensor **BEHIND** catalytic converter, bank 1