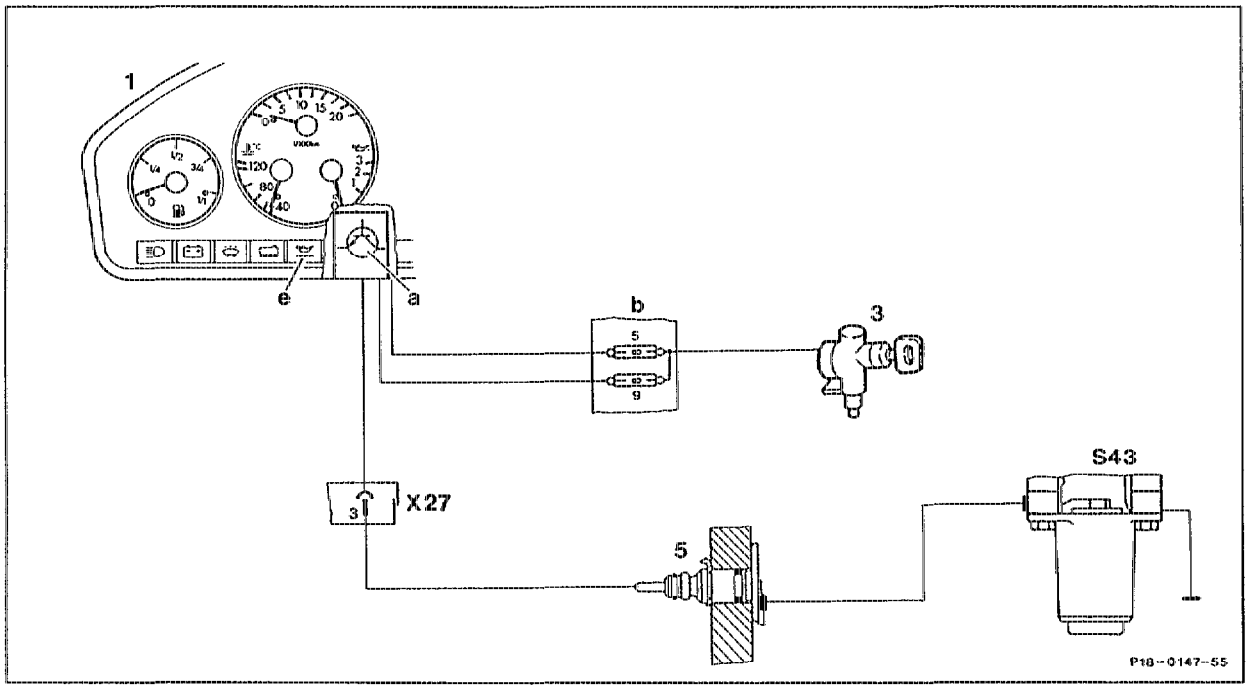
A. Model 129



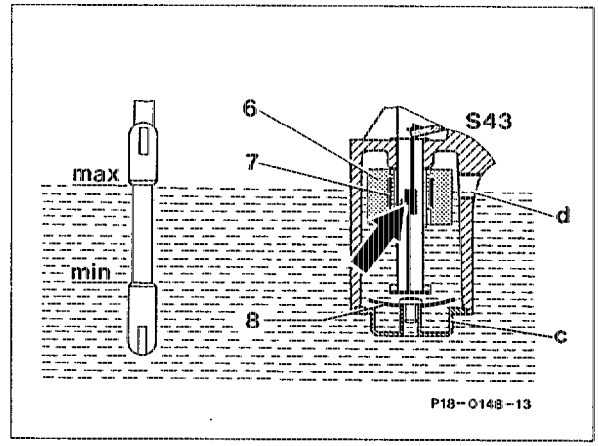
1	Instrument cluster	a	Microprocessor
3	Ignition starter switch	b	Fuses 5 and 9
5	Plug connection, oil level sensor (bottom right of crankcase)	e	Oil level indicator level
		S43	Oil level sensor
		X27	Plug connection, starter wiring harness

General

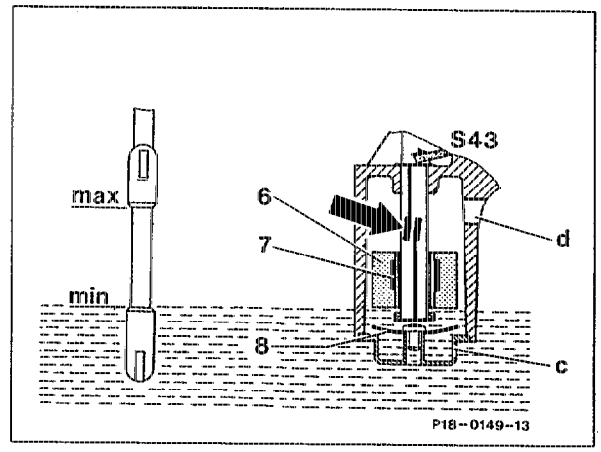
The electric oil level gauge monitors the engine oil level in the sump when the engine is running and the engine oil temperature is above 60 °C. When ignition is switched on, the indicator lamp lights up and goes out as soon as the engine is started.

Function

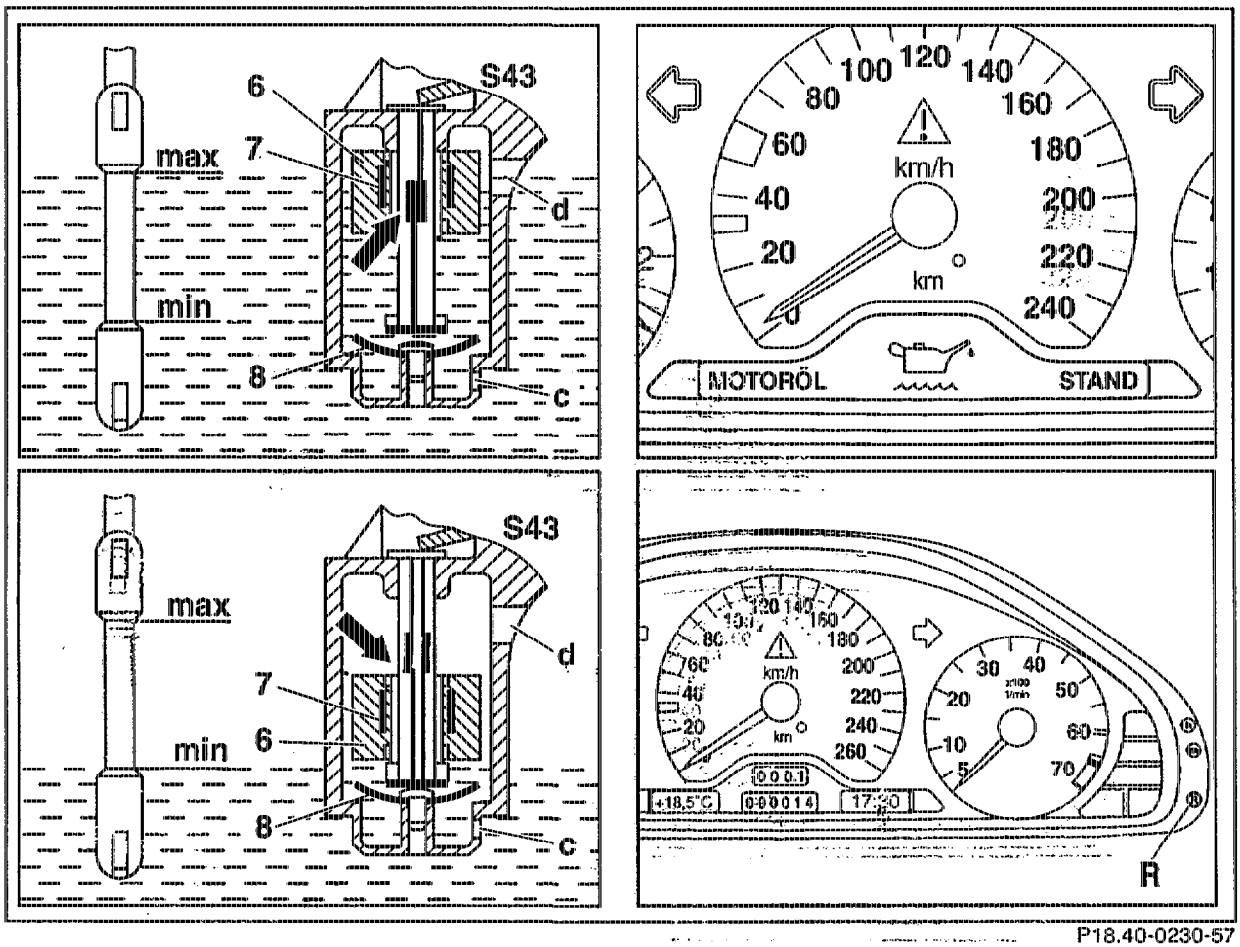
The engine oil in the oil level sensor (S43) is matched to the engine oil level in the sump through the drain drilling (c). When the engine oil is at the correct level, the contact (arrow) is closed by the float (6) with a magnet (7) and a permanent input signal (vehicle ground) is supplied to the microprocessor (a) in the electrical base plate of the instrument panel unit (1).



If the engine oil level is too low, the float (6) moves down and opens the contact (arrow). The input signal is thus interrupted and the oil level indicator lamp (a) lights up after 60 sec. (switching lag controlled by microprocessor (a) in instrument panel unit). If the engine oil level is too low or if there is an open circuit in the wiring, the oil level indicator lamp (e) remains on after the engine is running. The drain drilling (c) is opened by the bimetal snap plate (a) from an engine oil temperature of 60 °C and the engine oil level in the oil level sensor is matched to that in the sump.



⚠ Engine oil change
Below 60 °C the engine oil is viscous and only flows back slowly into the sump; i. e. an oil level measured at a temperature below 60 °C does not correspond to the actual oil capacity.
When changing the engine oil, the oil level sensor (S43) is filled through the vent passage (d) as the passage (c) is closed by the cold engine oil at approx. 30 °C.



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General

The electric oil level indicator monitors the engine oil level in the sump when the engine is running and the engine oil temperature is above 60 °C.

Operation

The engine oil in the oil level sensor (S43) is matched to the engine oil level in the sump through the drained drilling (c). If the engine oil is at the correct level, the contact (arrow) is closed by the float (6) with a magnet (7) and a permanent input signal (vehicle earth) is supplied to the ME-SFI control module.

If the engine oil level is too low, the float (6) moves down and opens the contact (arrow). This causes the input signal to be interrupted and the engine oil level indicator in the instrument cluster comes on after 60 seconds (operating time lag) and, in additon, a warning signal sounds.

If the engine oil level is too low or if there is an open circuit in the wiring, the oil level indicator comes on with an additional warning signal about 25 seconds after the engine has started. The warning indicator remains on for a further 2 minutes or so after the engine is switched off. The warning signal can be canceled when driving by pressing the R button.

Engine oil change

The drain drilling (c) is opened by the bi-metal snap plate (8) from an engine oil temperature of 60 °C and the oil level in the oil level sensor is adjusted to that in the sump.

At temperatures below 60 °C, the engine oil is viscous and flows back only slowly into the sump, i.e. a capacity measured at temperatures below 60 °C does not correspond to the actual oil capacity.

When the engine oil is changed, the oil level sensor (S43) is filled through the vent drilling (d) as the drilling (c) is closed at about 30 °C as a result of the cold engine oil.