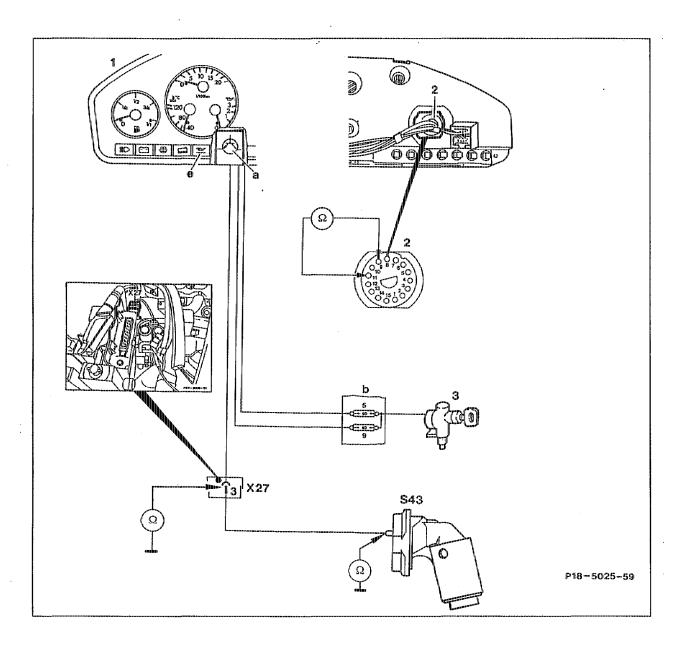
Operation no. of operation texts and work units or standard texts and flat rates:



#### Shown on model 129

Instrument panel unit	a	Microprocessor
Connector 2, instrument panel unit	þ	Fuses 5 and 9
lanition lock	Θ	Oit level indicator lamp
•	\$43	Oil level sensor
	X27	Connector, starter wiring harness connector
	•	Connector 2, instrument panel unit b lgnition lock e S43

# If the following problems exist:

A: Key in position "2"		indicator lamp (e) does not come on.
B: Engine oil level "max" and engine running	v o + k	indicator lamp (e) comes on and remains on.
C: Engine oil level "max" and engine running		indicator lamp (e) comes on intermittently.

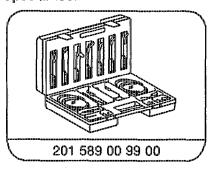
#### Test data

Resistance of oil level sensor at "max" oil level	< 0.10 Ω
Resistance of oil level sensor at "min" oil level	ω Ω

### Test conditions

Engine oil temperature	> 60 °C
	==X=======ddd=========================
Battery voltage	12 V

# Special tool

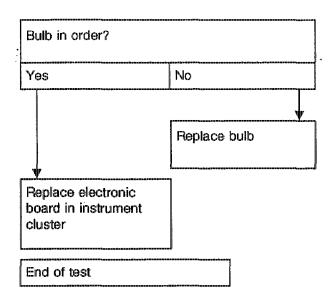


# Commercially available tools and testers

Designation	e. g. make, order no.
Multimeter	e. g. Sun DMM-5

Test in the case of problem "A"

Indicator lamp (e) does not come on when key in position "2" (requirement: voltage supply exists at instrument cluster).

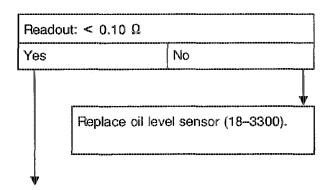


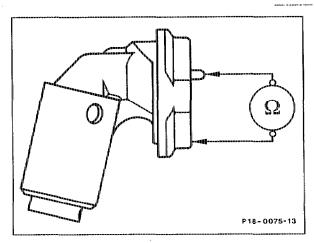
#### Test in the case of problem "B"

When engine oil at "max" level and engine running, indicator lamp (e) comes on and remains on.

Test oil level sensor

Remove plug from oil level sensor connector (5). Use multimeter to test pin of connector to ground.





Insert plug of oil level sensor, test cable with oil level sensor to instrument cluster. Remove instrument cluster for this step. Disconnect plug (2) and use multimeter to measure resistance between contact 9 (oil level sensor wiring harness) and contact 11 (W1 main ground behind instrument cluster). Readout: < 1 Ω No Yes Use multimeter to test pin of connector (X27) to ground. Readout: < 1  $\Omega$ No Yes Wiring harness to Starter wiring instrument cluster harness has open has open circuit. circuit. Replace electronic board in instrument cluster. End of test

Test in the case of problem "C"

Indicator lamp (e) comes on intermittently when engine running and oil at correct level.

Test switching delay of electronic board in instrument cluster.

Run engine, disconnect plug of oil level sensor.

Readout: indicator lamp (e) comes on after a time lag < 60 sec.

Yes No

Replace electronic board of instrument cluster.

Test oil level sensor and wiring harness, see test B.

End of test