

## 07.3–105 Checking, adjusting on-off ratio

### National version

Identification: Information label in national language on cross member in front of radiator. Adjust engines according to data of respective emission information label.

### Testing and adjusting values


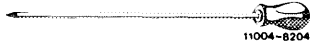

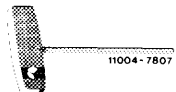
Engine	Idle speed 1/min	On-off ratio in %		
		Adjusting value	controlled	fixed

#### 1980

Identification: Black information label.

117	650 ± 50	50 ± 10	40–60	50/50
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### Special tools

Oil telethermomenter		116 589 27 21 00
Puller for safety plug		123 589 05 33 00
Installer for safety plug		123 589 00 15 00
Screwdriver 3 mm with tommy handle for adjusting idle speed emission value		000 589 14 11 00

### Conventional testers

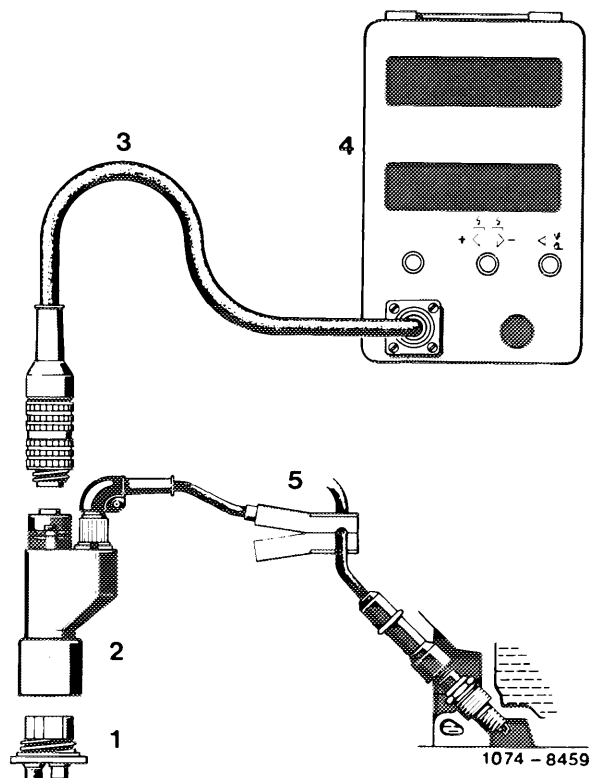
Revolution counter	
Digital tester	e.g. Bosch, MOT 001.03
Lambda control tester KDJE–P 600	e.g. Bosch

## Adjusting

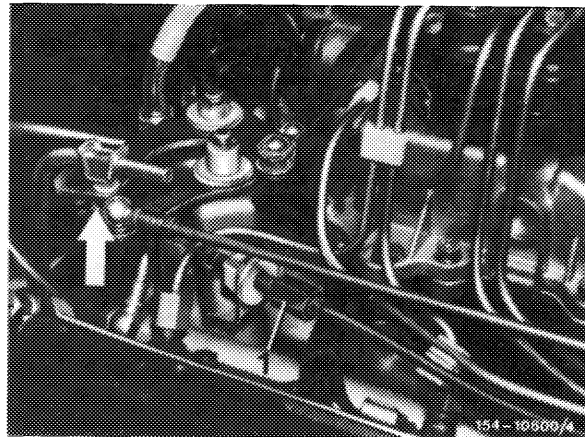
- 1 Connect digital tester or revolution counter, oil telethermometer and lambda control tester.
- 2 Switch off air conditioning or automatic climate control. Move selector lever into position "P".
- 3 Run engine to 75–85 °C oil temperature.
- 4 Check whether throttle valve lever rests against idle speed stop.
- 5 Check intake system for leaks. For this purpose, spray all sealing points with Iso-Oktan DIN 51756 or benzine.

### Attention!

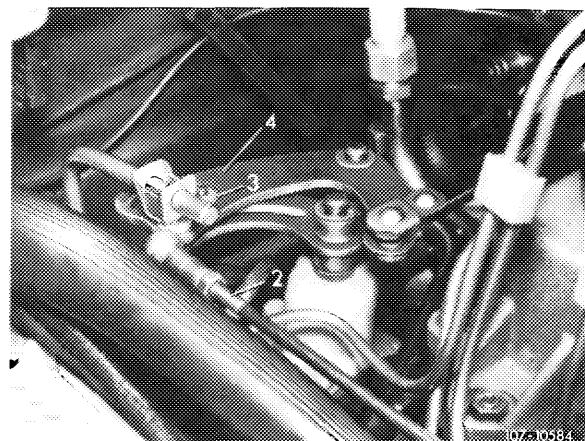
Do not use conventional fuel for spraying (unhealthy vapors). Pay attention to fire hazard and do not spray on red-hot parts or parts of ignition system.



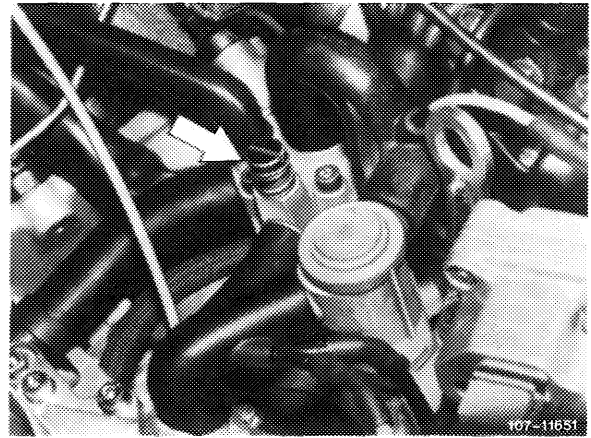
Check whether Bowden wire for cruise control/Tempomat rests free of tension against regulating lever (arrow). Adjust by means of adjusting nut (1), if required.



7 Check whether roller (3) in slotted lever (4) rests free of tension against end stop. Adjust by means of connecting rod (2), if required.



8 Run engine at idle, switch off all electric additional consumers. Adjust an idle speed of  $650 \pm 50$ /min by means of idle speed air screw (arrow).



9 Check on-off ratio and adjust, if required.

**Note:** For adjusting on-off ratio at idle the air cleaner need not be removed.

Read on-off ratio at tester, if value is between 40–60 the on-off ratio is in order. If not, pull out safety plug (4) with puller.

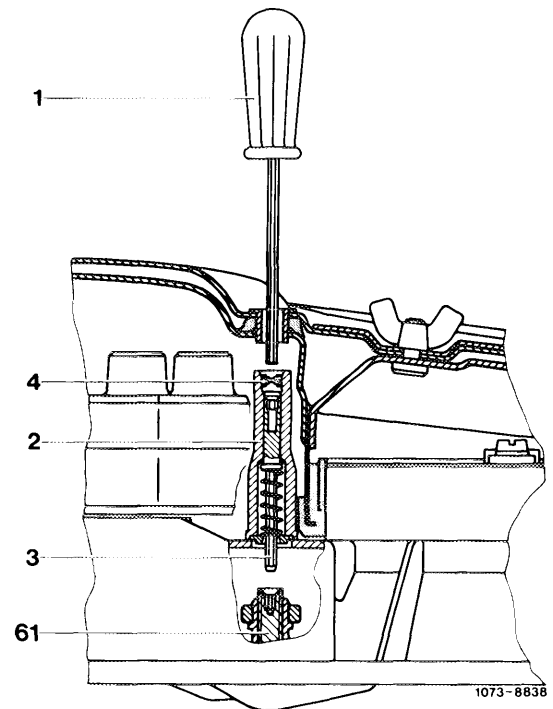
Push with screwdriver (1) through cutout in air cleaner top against adjuster (2). Push adjuster down with screwdriver against spring force, turn slightly until hexagon (3) engages in mixture control screw (61).

Turning counterclockwise = 60 % (leaner)  
Turning clockwise = 40 % (richer)

Release screwdriver, compression spring will release adjusting device from mixture control screw.

Accelerate shortly and check on-off ratio, readjust if required.

Following adjustment, install a blue safety plug (4), part No. 000 997 56 86 by means of installer.



10 Engage selector lever in driving position, switch on air conditioning, turn power steering to full lock, engine should run smoothly. Readjust engine speed, if required.