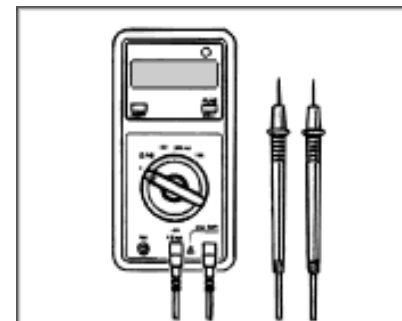


## 97 Measurement of closed-circuit current

- Tools
- Preparations on the vehicle
- Measurement

### Tools

Closed-circuit current should be measured using an analog ammeter or a digital multimeter with a long integration time (to filter out voltage peaks).



Item	Special tool designation	Remarks
	Multimeter 155	Workshop Equipment Manual, Gr. 2.5

### Preparations on the vehicle



#### Note

- Before measuring the closed-circuit current, determine the vehicle equipment (M-number, I-number) and establish the expected closed-circuit current with the aid of the attached table. => Measurement
1. Open the front luggage compartment.
  2. Using a suitable tool - e.g., upper part of lock with a suitable handle - close lower part of luggage compartment lock while keeping the luggage compartment lid open.
  3. Remove the ignition key and lock vehicle (alarm unit is primed).

### Connect measuring instrument

1. Set the measuring instrument to the highest possible current-measuring range.
2. With two alligator clips, connect the measuring instrument to the battery ground and to the unoccupied second body ground which is always available for RHD or LHD.
3. Remove ground strap from the body and secure against contact with the body. The entire vehicle current now flows through the ammeter.

### Measurement

- Select a measuring range which ensures that the pointer of the instrument is in the upper third of the scale, as far as possible. Switch over measuring range without interruption. Read off the measuring values after the waiting period specified in the table.
- Do not switch on any electrical loads (opening the central locking system) during measurement.



#### Note

- If the value of the closed-circuit current is higher than the value determined in the table, the cause must be established systematically.
- The recommended troubleshooting procedure: With the measuring instrument connected, remove the fuse of terminal 30 and the relays one after the other. Observe the display values of the measuring instrument when removing in order to recognize a reduction in current.
- After troubleshooting, screw the ground strap back onto the body in the proper manner.
- The measured values could vary by approx. 20%.
- The values listed in the table depend on the condition of the battery, the room temperature, and the engine temperature.

#### Reading off the measuring range up to MY '01:

- Read off the measuring range only when 31 minutes have passed since the vehicle was locked.

#### Reading off the measuring range as of MY '02:

- Read off the measuring range only when 61 minutes have passed since the vehicle was locked.

From	to	mA
0 min	5 min	up to approx. 950

6 min	15 min	up to approx. 900
16 min	20 min	up to approx. 750
21 min	60 min	up to approx. 50
61 min	until the battery is empty	up to approx. 30

Control module	Equipment	Closed-circuit current in mA	
		up until MY '01	as of MY '02
Generator	Standard	0,7	0,5
DME	Standard	0,4	0,3
Instrument cluster	Standard	5,4	1,4
Immobilizer/central locking	Standard	6,5	13
Installing passenger compartment monitoring / tilt sensor	M-No. 534	5,5	6,6
Power windows, front	Standard	1,0	1,1
Convertible-top control module	Standard	3	0,5
Tiptronic*	M-No. 249	0,4	0,4
ABS	Standard		0,1
PSM			0,1
Radio		1,0	1,0
Removing	M-No. 692	1,0	0,8
Amplifier, Audio	M-No. 490	1,0	0,3
Information system Navi	M-No. 662	1,0	1,2
Navi computer			0,7
PCM2 as of MY '03			2,8
MOTOROLA telephone preparation	M-No. 614	3,0	
NOKIA telephone preparation	M-No. 618	1,0	
Telephone as of MY '03			0,2
Seat memory, both	M-No. 537	1,0	1,6
Climatronic	M-No. 573		0,03
Standard production vehicle	total	approx. 17	approx. 17
Additional equipment	total	approx. 15	approx. 13
Maximum equipment	total	approx. 32	approx. 30

**Note**

- \* After the battery has been disconnected, terminal 15 must have been connected to the control unit at least once.