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WM 9X00IN Measurement of closed-circuit current

Tools

Designation	Туре	Number	Description	
Multimeter	Commercially available tool	155		PCRSCHE siehe Handbuch Werkstattausrüstung Voir le Manuel Equipement d'atelier Refer to the Workshop Equipment manual Vease Manual de Equipamiento de Taller Vedere il Manuale dell'attrezzatura d'officina ワークショップ・イクイップメント・マニュアルを参照

Tool

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



Digital multimeter

Item	Special tool designation	Explanation
-1-	Multimeter 155	\rightarrow "Gr. 2.5; Workshop Equipment Manual"

Preparatory work on the vehicle



Information

• Before measuring the closed-circuit current, determine the vehicle equipment (I-numbers) and establish the expected closed-circuit current with the aid of the attached table.

- The closed-circuit current must only be measured on a cold vehicle (engine & brakes).
- 1. Close all doors and lids on the vehicle.
- 2. Read out the fault memory and delete the displayed faults if necessary.

3. Disconnect the battery.

Connecting the measuring device

- 1. Use crocodile clips to connect the measuring device to the battery ground terminal and body ground point.
- 2. Remove ground strap from the body and secure against contact with the body. The entire vehicle current now flows through the ammeter.
- 3. Place an additional short circuit bridge over the input socket of the measuring device to prevent damage to the measuring device.

Measurement

Read off the measured values after the waiting period specified in the table.

- 1. Switch on ignition for 10 seconds.
- 2. Switch off ignition.
- 3. Open the driver's door and close the rotary latch with a screwdriver while the door is open.
- 4. Lock the vehicle using the central-locking remote control and switch off interior surveillance (press the button on the remote control twice in one second).
- 5. Remove short circuit bridge.
- 6. Read off the closed-circuit current.

Information

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• If the value of the closed-circuit current is higher than the value determined in the table, the cause must be established systematically.

• Recommended troubleshooting procedure: With the measuring device connected, remove the fuses of terminal 30 and the relays successively. Observe the values displayed on the measuring device when removing the fuses and relays in order to detect a reduction in current.

• The measured values can vary by approx. 20%.

• The values listed in the table depend on the condition of the battery, the room temperature, the engine temperature and therefore should only be regarded as guidelines.

Reading off the measuring range:

Read off the measuring range only after at least 35 minutes have passed since locking the vehicle.

From	to	mA
35 min.	Until battery is empty	max. 30

Control unit	Equipment	Closed-circuit current in mA
Alarm siren	Standard	0.89
Battery sensor	Standard	0.23
Front BCM, front-end electronics	Standard	2.3
Rear BCM, rear-end electronics	Standard	4.72
Roof console	Standard	0.11
DME	Standard	0.05
Steering column adjustment		0.06
Electric steering		0.07
ELV, electronic steering column lock	Standard	0
Gateway	Standard	0.2
Generator	Standard	0.13
Main fuse box	Standard	0
Interior surveillance		1.7
Front climate control panel	Standard	0.05
Instrument cluster	Standard	0.16
Fuel pump control unit	Standard	0
Steering column module	Standard	0.22
Light switch	Standard	0
Engine fan	Standard	0
PASM		0.05
Parking brake	Standard	0.22
РСМ		0.32
PDCC		0
PDK		0.05
PSM	Standard	0.11
TPM (Tyre Pressure Monitoring)		0.05
Rain sensor		0.05
Sliding roof		0.05

Seat, FL		0.13
Seat, FR		0.19
Heated seats		0
Stopwatch		0.05
Tank leakage diagnosis	Standard	0.05
Door, FL		0.2
Door, FR		0.15
TV tuner		0.15
Convertible top		0
Amplifier		0.08
Wiper	Standard	0.08
Ignition lock	Standard	0.06
Maximum closed-circuit current		30 mA
Calculated closed-circuit current		12.93 mA

7. Connect battery and read out fault memory. Delete any faults if necessary. → 2X00IN Work instructions after disconnecting the battery

981110, 981111, 981120, 981121, 981130, 981131, 981310, 981311, 981320, 981321, 981330, 981331

Model year as of 2012 C00, C02, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C32, C33, C34, C35, C36, C37, C38, C39, C41, C45, C46, C96, C97, C98, C99