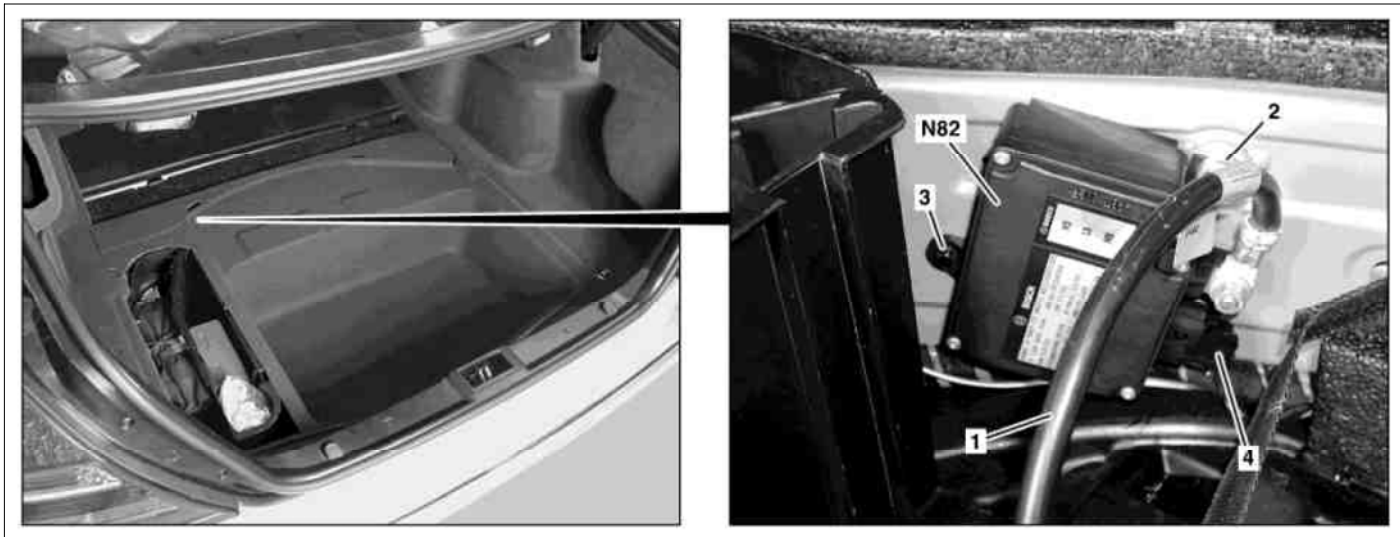


MODEL 211.0/ 2



P54.21-2170-08

Shown on model 211.0

1 Ground line

2 Bolt

3 Bolt

4 Electrical connector

N82 Battery control unit

	Remove		
Danger!	Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and safety glasses. Pour battery acid only into suitable and appropriately marked containers.	AS54.10-Z-0001-01A
	Notes on battery	All models	AH54.10-P-0001-01A
1	Remove trunk floor covering from trunk.		
2.1	Remove spare wheel cover or spare wheel well trim panel from trunk	Model 211.0, depending on equipment	
2.2	Remove cover above battery	Model 211.2	
3	Prepare vehicle for testing	Prerequisites: Vehicles without Keyless Go: Ignition switched off, ignition key removed. Vehicles with Keyless Go: Engine switched off, transmitter key located outside of vehicle and outside of transmission range.	
4.1	Disconnect trailer recognition unit	With code 550 Trailer hitch If the trailer recognition unit is connected, the quiescent current measurement would be incorrect due to the internal resistance of the connected multimeter; the measurement would be 100 mA too high.	
	Measure		
5	Set multimeter to highest possible current measurement range	To protect multimeter. When central locking is actuated, currents of approx. 20 A flow. 	*WH58.30-Z-1001-09A
6	Connect multimeter between ground line (1) and negative pole of on-board electrical system battery without interrupting current flow.	Ensure that power flow is not interrupted. To install multimeter, previously bridge negative pole of battery and battery control unit (N82).	
7 	Read out fault memory and erase Connect STAR DIAGNOSIS and read out fault memory	STAR DIAGNOSIS diagnosis system	AD00.00-P-2000-04A *WE58.40-Z-1013-06A
8	Mark vehicle so that it is easily visible	This is to ensure that the measuring results are not affected by unintentionally opening the doors or working on the vehicle.	
9	Close all doors and engine hood		
10	Actuate closing wedge in trunk lid lock with trunk lid open	Contact switch to "OFF" position, trunk light goes out.	

11	Lock vehicle from outside	Waiting time after locking vehicle is a maximum of 6 minutes.	AH54.10-P-0003-01T
	Notes on quiescent current consumption		
12	Measure quiescent current	A mean value of 60 mA should not be exceeded (specified value < 40 mA). Cause of fault 1: If the measurement was 1.2 to 2.5 A, this is usually caused by a control unit that is holding the bus awake. Cause of fault 2: If the measurement is between 80 and 180 mA, this is usually caused by a control unit not shutting off, thereby resulting in an increased quiescent current consumption.	
13.1	Separate each control unit in succession from rear SAM control unit with fuse and relay module (N10/2). After each measurement, plug fuse back in and continue with next one.	For cause 1: Wait 6 minutes, repeat measurement until bus is asleep. When the fuse for the component causing the problem is removed, the quiescent current decreases immediately.	
13.2	Remove the fuses individually in turn and isolate the defective control unit	For cause 2	
14	Disconnect control units from the CAN connections	As an alternative to removing the fuses, it is also possible to disconnect the control units from the bus. Refer to # Wiring diagram of interior CAN bus (X30/4) Wiring diagram of interior CAN bus (X30/7) Wiring diagram of interior CAN bus (X30/6)	AR54.10-P-1030-08T PE00.19-P-2300DA PE00.19-P-2300DB PE00.19-P-2300DC
PE			
PE			
PE			
15	Remove multimeter without interrupting current flow, connect ground line (1) to battery control unit ground point (N82).		*BA54.10-P-1004-01C
	Install		
16	Install in the reverse order		
17	Read out fault memory and erase		
AD	Connect STAR DIAGNOSIS and read out fault memory	STAR DIAGNOSIS diagnosis system	AD00.00-P-2000-04A *WE58.40-Z-1013-06A

Battery

Number	Designation	Model
BA54.10-P-1004-01C	Nut, ground line to battery control unit	M8 Nm 12

Commercially available tools (see Workshop Equipment Manual)

Number	Designation	Make (e. g.)	Order number
WH58.30-Z-1001-09A	Multimeter	Sun DMM-5, Fluke 23 DB, 83, 88, ITT Metrix MX 47, 50, 51, 52	

Workshop equipment/MB testers (see Workshop Equipment Manual)

WE58.40-Z-1013-06A	STAR DIAGNOSIS Compact diagnosis system for passenger cars, order number 6511 1801 00
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