

12.3 Model 202

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Diagnosis - Function Test

Test step/Test sequence	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 1.0 Adjust left outside mirror	Ignition: ON Turn mirror adjustment switch (S50) to the left mirror adjustment position and adjust.	Mirror adjustment: up down forward back	23⇒ 1.0, 3.0
⇒ 2.0 Adjust right outside mirror	Ignition: ON Turn mirror adjustment switch (S50) to the right position and adjust.	Mirror adjustment: up down outward inward	23⇒ 2.0, 3.0
⇒ 3.0 Outside mirror heating	Ignition: ON After approx. 1 minute feel mirror glass with palm of hand. Note: Temperature switching thresholds < 15° C: Mirror heating ON > 25° C: Mirror heating OFF	Both mirror lenses warm up.	23⇒ 4.0, 5.0

¹⁾ Observe Preparation for Test, see 22.

Diagnosis – Function Test

Test step/Test sequence	Test condition	Nominal value	Possible cause/Remedy ¹⁾
⇒ 4.0 <i>Non-USA vehicles only. Continue to next test step</i>			
⇒ 5.0 Inside mirror dimming	Ignition: ON Set mirror switch to “MIN” or “MAX” position. Cover light sensor on back of automatically dimming mirror. Shine flashlight on light sensor on mirror surface. Engage reverse gear. Move selector lever out of reverse gear. Switch on ceiling lamp.	Mirror surface darkens. Mirror surface becomes lighter. Mirror surface darkens. Mirror surface becomes lighter.	23⇒11.0, 12.0, 13.0.

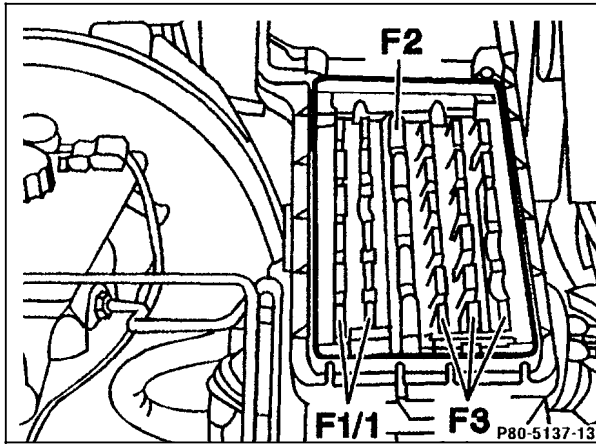
¹⁾ Observe Preparation for Test, see 22.

Diagnosis - Complaint Related Diagnostic Chart

Complaint/Problem	Possible cause	Remedy/Test step ¹⁾
Entire mirror adjustment not functioning.	Outside mirror control switch (S50).	23 ⇒ 3.0
Left outside mirror adjustment not functioning.	Electrically adjustable and heated driver side outside rearview mirror (M21/1).	23 ⇒ 1.0
Right outside mirror adjustment not functioning.	Electrically adjustable and heated front passenger side outside rearview mirror (M21/2).	23 ⇒ 2.0
Left side mirror heat not functioning.	Electrically adjustable and heated driver side outside rearview mirror (M21/1) heating element.	23 ⇒ 4.0
Right side mirror heat not functioning.	Electrically adjustable and heated front passenger side outside rearview mirror (M21/2) heating element.	23 ⇒ 5.0
Outside mirror control switch illumination not functioning.	Outside mirror control switch (S50) illumination .	23 ⇒ 6.0
Inside mirror automatic dimming not functioning.	Automatic dimming inside mirror (H7) voltage supply. Backup lamp switch (S16/2). Dome lamp with shut off delay and reading lamp (E15).	23 ⇒ 11.0 23 ⇒ 12.0 23 ⇒ 13.0

1) Observe Preparation for Test, see 22.

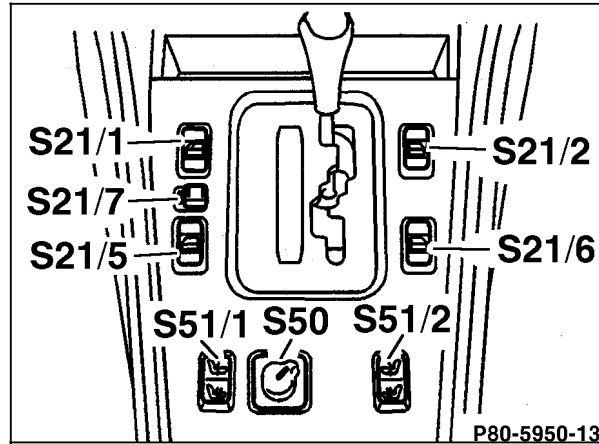
Electrical Test Program - Component Locations



P80-5137-13

Figure 1

F3 Fuse box (18-fuse, in fuse and relay box F1)



P80-5950-13

P82-5950-13

Figure 2

S50 Outside mirror control switch

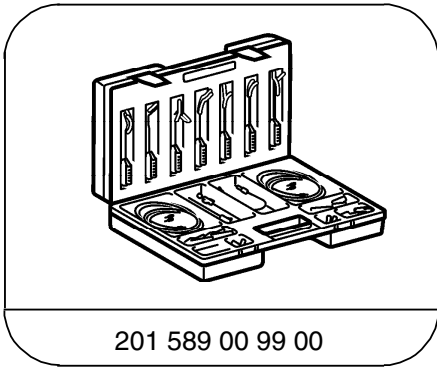
Electrical Test Program - Preparation for Test

1. Battery voltage 11-14 V.
2. Fuse must be O.K.

Wiring diagrams

Electrical Troubleshooting Manual, Model 202.

Special Tools



201 589 00 99 00

Electrical connecting set

Equipment

Multimeter ¹⁾

Fluke models 23, 83, 85, 87

¹⁾ Available through the MBUSA Standard Equipment Program.

Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 1.0	Electrically adjustable and heated driver-side outside rearview mirror (M21/1) Voltage supply	<p>M21/1 5 — (← ⊖ ⊕ →) — 4</p> <p>M21/1 3 — (← ⊖ ⊕ →) — 4</p>	<p>Connector unplugged from M21/1. Ignition: ON Outside mirror control switch S50 pushed upward</p> <p>S50 pushed downward</p> <p>S50 pushed outward</p> <p>S50 pushed inward.</p>	<p>11 – 14 V</p> <p>-11 to -14 V</p> <p>11 – 14 V</p> <p>-11 to -14 V</p>	Wiring, S50, M21/1.
⇒ 2.0	Electrically adjustable and heated front-passenger outside rearview mirror (M21/2) Voltage supply	<p>M21/2 5 — (← ⊖ ⊕ →) — 4</p> <p>M21/2 3 — (← ⊖ ⊕ →) — 4</p>	<p>Connector unplugged from M21/2. Ignition: ON S50 pushed upward.</p> <p>S50 pushed downward.</p> <p>S50 pushed outward.</p> <p>S50 pushed inward.</p>	<p>11 – 14 V</p> <p>-11 to -14 V</p> <p>11 – 14 V</p> <p>-11 to -14 V</p>	Wiring, S50, M21/2.

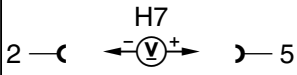
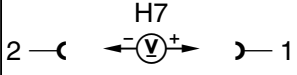
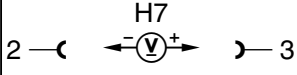
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 3.0	Outside mirror control switch (S50) Voltage supply		Connector unplugged from S50. Ignition: ON	11 – 14 V	Wiring.
⇒ 4.0	Electrically adjustable and heated driver-side outside rearview mirror (M21/1) heating Voltage supply		Connector unplugged from M21/1. Ignition: ON	11 – 14 V	Wiring.
⇒ 5.0	Electrically adjustable and heated front passenger outside rearview mirror (M21/2) heating Voltage supply		Connector unplugged from M21/2. Ignition: ON	11 – 14 V	Wiring.
⇒ 6.0	Outside mirror control switch (S50) lighting Voltage supply		Connector unplugged from S50. Switch on parking lamps	11 – 14 V	Wiring.

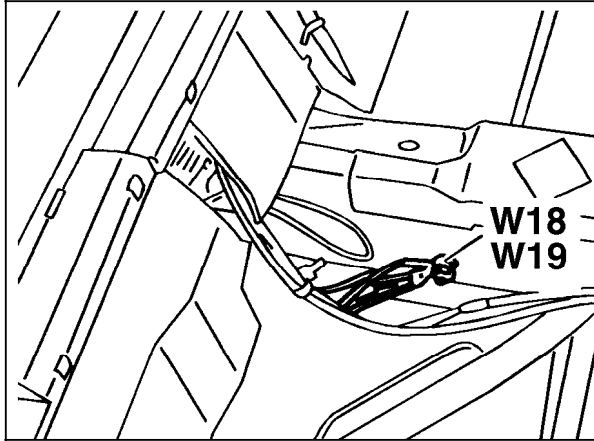
Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 7.0	<i>Non-USA vehicles only. Continue to next test step.</i>				
⇒ 8.0	<i>Non-USA vehicles only. Continue to next test step.</i>				
⇒ 9.0	<i>Non-USA vehicles only. Continue to next test step.</i>				
⇒ 10.0	<i>Non-USA vehicles only. Continue to next test step.</i>				

Electrical Test Program - Test

Test step DTC	Test scope	Test connection	Test condition	Nominal value	Possible cause/Remedy
⇒ 11.0	Automatic dimming inside rearview mirror (H7) Voltage supply	 <p>H7 2 —(←(V)→)— 5</p>	Connector unplugged from H7. Ignition: ON .	11 – 14 V	Wiring.
⇒ 12.0	Backup lamp switch (S16/2) Voltage supply	 <p>H7 2 —(←(V)→)— 1</p>	Connector unplugged from H7. Ignition: ON . Reverse gear engaged.	0 – 1 V 11 – 14 V	Wiring, S16/2.
⇒ 13.0	Outside mirror control switch (S50) Voltage supply	 <p>H7 2 —(←(V)→)— 3</p>	Connector unplugged from H7. Ignition: ON . Dome lamp switched on.	0 – 5 V 11 – 14 V	Wiring, E15.

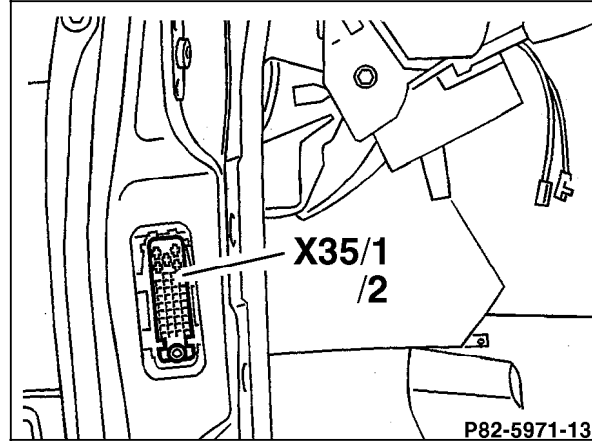
Electrical Test Program - Test



P91-5552-13

Figure 1

W18 Ground (left front seat crossmember)



P82-5971-13

P82-5971-13

Figure 2

X35/1 Left front door plug connection
X35/2 Right front door plug connection