

### Diagnosis – Function Test

#### Preliminary work:

Check operation of central locking,  
see PSE/CL 11  $\Rightarrow$  1.0 – 9.0 (3.1)  
Check batteries in infrared transmitter key,  
see SMS, Repair Instructions, Job No. .... 80–420

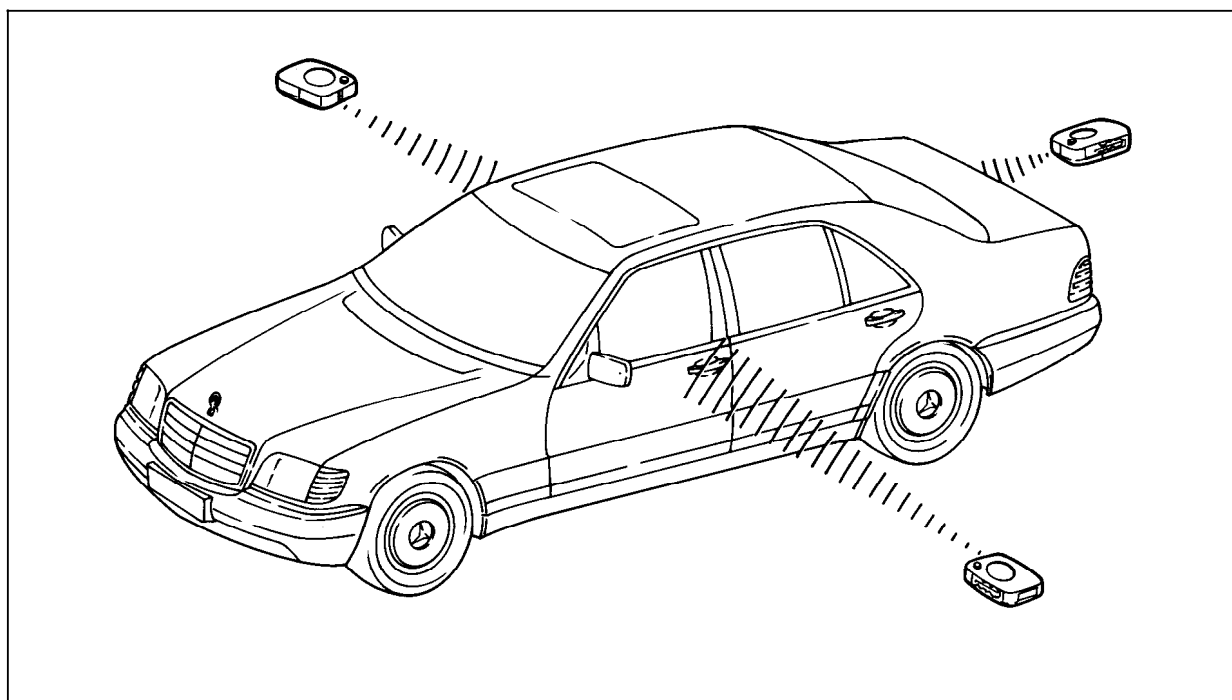


Figure 1

P80-0144-55

### Diagnosis – Function Test

#### Preparation for Test:

1. Battery voltage 11 – 14 V,
2. Fuse F4–2 and F4–15 ok,
3. Central locking system in proper operating condition,
4. Batteries in key holder (infrared transmitter) ok,
5. Infrared transmitter synchronized (see note below),
6. Key removed from steering lock,
7. Side windows lowered approx. 100 mm (4 in.),
8. Sliding/pop-up roof open,  
(Windows *must* be synchronized for steps 7 and 8, see note below)
9. Doors and trunk lid closed,
10. Central locking system unlocked.

#### Electrical wiring diagrams

See Electrical Troubleshooting Manual, Model 140.

#### Note:

If the windows cannot be fully opened or closed using the one-touch feature (e.g., after the vehicle's battery has been disconnected), re-synchronize windows by pressing the upper half of each window switch to the 2nd detent until the window is completely closed and hold for an additional 2 seconds. Repeat procedure for each window.

#### Note for models as of 12/93:

If an IR transmitter is lost, it can be disabled from controlling the IRCL system by de-synchronizing the IRCL control module and then resynchronizing (recoding) the remaining IR transmitter(s). Thus, only the mechanical locks need to be replaced to assure vehicle security.

#### De-synchronizing/Re-synchronizing Infrared Signal for IRCL

De-synchronizing (as of 12/93 production only)

1. Ground the IRCL pin in the data link connector (X11/4) for 30 - 40 seconds with the ignition **ON**.
2. De-synchronization can also be performed with the impulse counter scan tool by connecting the scan tool to the data link connector (see section 0), turning the ignition **ON** and pressing the start button for 30 - 40 seconds.
3. The HHT can be used as well by following the menu-driven commands.

Re-synchronizing (as of 12/93 production only)

1. To synchronize the infrared transmitter, point the infrared transmitter toward a receiver and press button momentarily. Using the mechanical key, switch on ignition within 30 seconds. This will synchronize and enable the control module to recognize the infrared transmitter.

### Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy <sup>1)</sup>
⇒ 1.0 Locking of vehicle with infrared remote control via left front door IR receiver (A26/1).	Lock vehicle using IR transmitter via the left front door.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Red indicator lamp of receiver in left front door blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0 – 11.0
⇒ 2.0 Unlocking of vehicle with infrared remote control via left front door IR receiver (A26/1).	Unlock vehicle using IR transmitter via the left front door.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Green indicator lamp of receiver in left front door blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0, 8.0 – 10.0, 12.0.
⇒ 3.0 Locking of vehicle with infrared remote control via right front door IR receiver (A26/2).	Lock vehicle using IR transmitter via the right front door.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Red indicator lamp of receiver in right front door blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0 – 7.0, 13.0 – 16.0.

<sup>1)</sup> Observe Preparation for Test, see 22.

### Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy <sup>1)</sup>
⇒ 4.0 Unlocking of vehicle with infrared remote control via right front door receiver (A26/2).	Unlock vehicle using IR transmitter via the right front door.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Green indicator lamp of receiver in right front door blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0, 13.0 – 15.0, 17.0.
⇒ 5.0 Locking of vehicle with infrared remote control via trunk lid receiver (A26/3).	Lock vehicle using IR transmitter via the trunk lid.	Vehicle is locked. All red indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Red indicator lamp of receiver in trunk lid blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0 – 7.0, 18.0 – 21.0.
⇒ 6.0 Unlocking of vehicle with infrared remote control via trunk lid receiver (A26/3).	Unlock vehicle using IR transmitter via the trunk lid.	Vehicle is unlocked. All green indicator lamps blink for a maximum of approx. 3 seconds (vehicles up to 06/93). Green indicator lamp of receiver in trunk lid blinks for a maximum of approx. 3 seconds (vehicles as of 07/93).	23 ⇒ 1.0, 18.0 – 20.0, 22.0.
⇒ 7.0 Close side windows and sliding/pop-up roof with infrared remote control.	Point IR transmitter towards one of the IR receivers and press transmit button for > 1 second.	Side windows and sliding/pop-up roof close.	23 ⇒ 1.0, 8.0 – 22.0

<sup>1)</sup> Observe Preparation for Test, see 22.

## 4.2 Infrared Remote Central Locking (IRCL)

## Model 140

### Diagnosis – Function Test

Test step/Test scope	Test condition	Nominal value	Possible cause/Remedy <sup>1)</sup>
⇒ 8.0 Open side windows and sliding/pop-up roof with infrared remote control.	With the side windows and sliding/pop-up roof open, lock vehicle using infrared transmitter. Within 10 seconds, point IR transmitter towards one of the IR receivers and press transmit button for > 4 seconds.	Side windows and sliding/pop-up roof open.	23 ⇒ 1.0, 8.0 – 22.0
⇒ 9.0 Indication of an improperly closed door or trunk lid (vehicles up to 11/93).	Open one of the doors or the trunk lid. Lock vehicle using IR transmitter	Red indicator blinks for approx. 10 seconds.	23 ⇒ 1.0 – 5.0, 7.0 – 11.0, 13.0 – 16.0, 18.0 – 21.0.
⇒ 10.0 Activate immobilization (vehicles as of 12/93).	Lock vehicle using IR transmitter. Try to start engine.	Starter motor does not turn. Engine does not start.	23⇒ 23.0 Wiring, Starter lock-out relay module (K38).
⇒ 11.0 Deactivate immobilization (vehicles as of 12/93).	Unlock vehicle using IR transmitter. Try to start engine.	Starter motor turns. Engine starts.	23⇒ 23.0 Wiring, Circuit 15, Circuit 50, Starter lock-out relay module (K38), Ignition starter switch (S2/1) <sup>2)</sup> , Glow/starter switch (S2/2) <sup>3)</sup> , Starter (M1).

1) Observe Preparation for Test, see 22.

2) Vehicles with gasoline engine

3) Vehicles with diesel engine