

15.03.07

The document has been updated to this date
and will no longer be subject to revision.

- 1 Terminal status
- 2 Interior temperature
- 3 Steering wheel heater (LRH) On/Off
- 4 Voltage supply
- 5 Steering wheel rim temperature
- 6 Function display

A74 Steering wheel heater electronics

N22 AAC [KLA] control and operating unit (without code (581b) comfort automatic air conditioning)

N22/7 Comfort AAC control and operating unit (with code (581b) comfort automatic air conditioning)

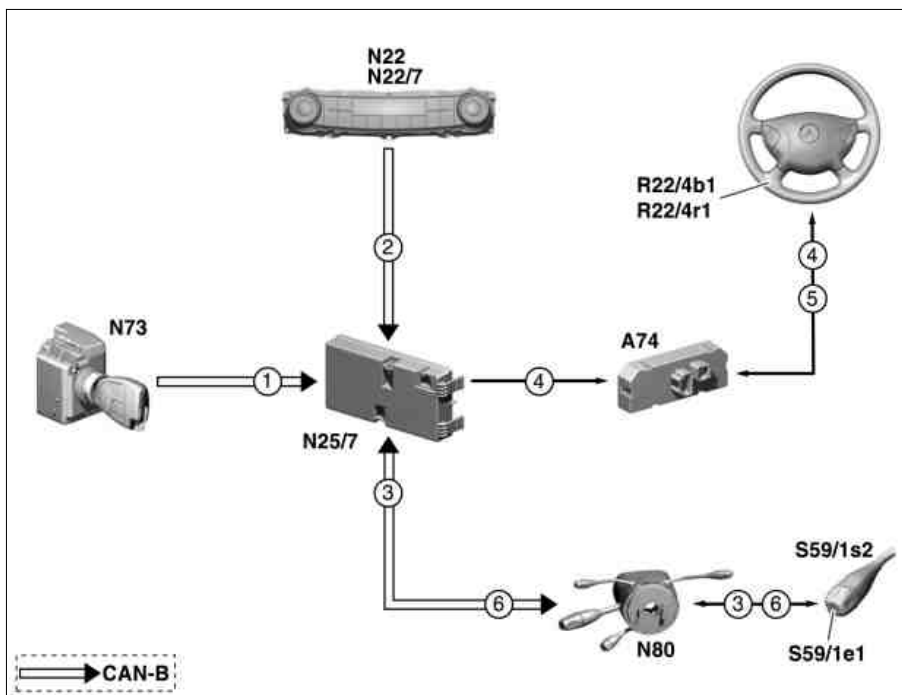
N25/7 HS [SIH] and seat ventilation control unit

N73 EIS [EZS] control unit

N80 Steering column module

R22/4b1 Heater coil temperature sensor

R22/4r1 Heater coil



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S59/1e1 Steering wheel heater function indicator lamp

S59/1s2 Steering wheel heater switch

CAN-B Controller area network bus, class B (interior compartment) (CAN B)

General

In order to make hand contact more comfortable and safer at low temperatures, the steering wheel can be heated up via the steering wheel heater (LRH).

Operation takes place via the steering wheel heater switch (S59/1s2), control is taken over by the HS [SIH] and seat ventilation control unit (N25/7).

Function requirements

- Circuit 15R or circuit 15 ON
- Interior temperature < 30 °C

Switch on steering wheel heater (LRH)

- Rotate the steering wheel heater switch (S59/1s2) upwards.
- The signal is read in by the steering column module (N80) and transmitted via the CAN-B (CAN-B) to the HS [SIH] and seat ventilation control unit (N25/7).
- The heater coil (R22/4r1) is supplied with voltage by the HS [SIH] and seat ventilation control unit (N25/7) via the steering wheel heater electronics (A74).

Switching off the steering wheel heater (LRH) automatically

- Once the maximum heating time has elapsed (continuous heat mode for 15 minutes) the HS [SIH] and seat ventilation control unit (N25/7) is shut off.
The steering wheel heater function indicator (S59/1e1) goes out.
- The HS [SIH] and seat ventilation control unit (N25/7) is shut off at an interior temperature higher than 30 °C.
The steering wheel heater function indicator (S59/1e1) remains active.

The temperature of the steering wheel rim is measured by the steering wheel heater electronics via the heater coil temperature sensor (R22/4b1)(A74) and used for the control (target temperature approx. 35 °C).

Function indicator

The activated steering wheel heater (LRH) is displayed by the steering wheel heater function indicator (S59/1e1) in the steering wheel heater switch (S59/1s2).

Switching off steering wheel heater (LRH) manually

- Turn the steering wheel heater switch (S59/1s2) downwards.
- The signal is read in by the steering column module (N80) and transmitted via the CAN-B (CAN-B) to the HS [SIH] and seat ventilation control unit (N25/7).
- The HS [SIH] and seat ventilation control unit (N25/7) deactivates the steering wheel heater (LRH).

i The steering wheel heater function indicator (S59/1e1) in the steering wheel heater switch (S59/1s2) goes out.

Abort conditions

- During the engine starting process.
The steering wheel heater function indicator (S59/1e1) remains active.
- In the event of undervoltage or overvoltage.
The steering wheel heater function indicator (S59/1e1) flashes at 1.5 Hz and 50 % brightness.

i **Reading in the steering wheel heater switch (S59/1s2):**

The position of the steering wheel heater switch (S59/1s2) is read

i The interior temperature is transmitted by the AAC [KLA] control and operating unit (N22) or by the comfort AAC control and operating unit (N22/7) via the CAN-B (CAN-B).

- Circuit 15R is switched off.

i The timer control continues running for 5 minutes with circuit 15C <-> On. If within this period circuit 15R is switched on again, the steering wheel heater (LRH) is also activated again.

out by the steering column module (N80) and placed on CAN-B (CAN-B). As long as the steering wheel heater switch (S59/1s2) is operated (turning up or down), the corresponding position is transmitted cyclically. The center position of the steering wheel heater switch (S59/1s2) is not transmitted by the steering column module (N80) .

	Steering wheel heater (LRH), block diagram		GF46.11-P-0001-02TA
	Steering wheel heater (LRH), location of components		GF46.11-P-0001-03TA
	Steering wheel heater switch, location/task		GF46.11-P-4001T
	Steering wheel heater electronics, location/task		GF46.11-P-4003T
	Heated seats/seat ventilation control unit, location/task		GF91.30-P-3005T
	Steering column module, location/task		GF54.21-P-4125T
	Electronic ignition switch control unit, location/task		GF80.57-P-4120T
	Control and operating unit for automatic air conditioning, location/task	On vehicles without code (581b) comfort automatic air conditioning	GF83.40-P-2180T
	Control and operating unit for comfort automatic air conditioning, location/task	On vehicles with code (581b) comfort automatic air conditioning	GF83.40-P-2181TT