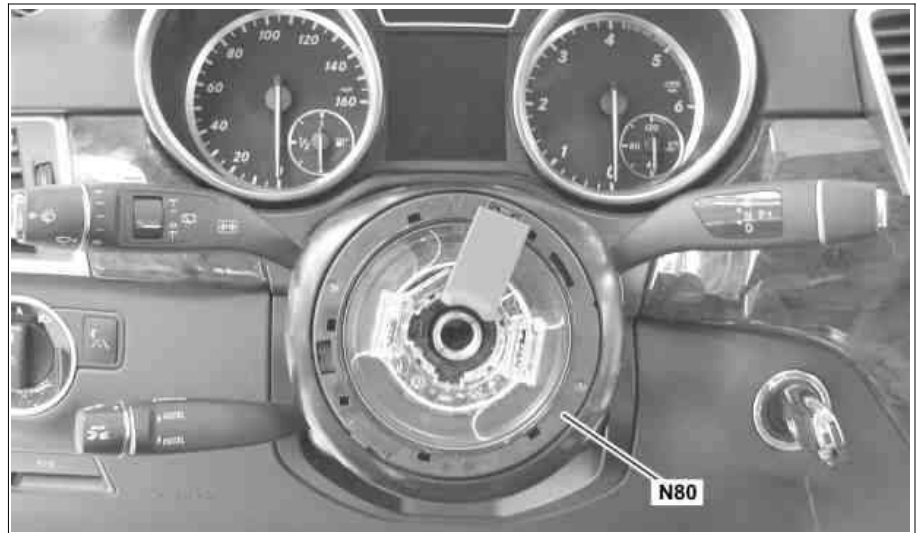


MODEL 166
up to model year 2016

Shows model 166.0

N80 Steering column module control unit



P54.21-3186-05

Task

The steering column tube module control unit has the following tasks:

- **Reading in of sensors and signals**

Reading in of sensors and signals

The input factors are read in via the following connections:

- **Direct line**
- **Steering LIN (LIN E1)**
- **Chassis CAN 1 (CAN E1)**

Direct line

The signals from the following components are read via direct lines:

- Steering wheel angle sensor (N49)
- Combination switch (S4)
- DIRECT SELECT lever (S16/13)
- Cruise control lever (S40/4)
- Steering column adjustment switch (S59) (except CODE 443 (Steering wheel heater))

Actuation of components

Components are actuated with the following lines:

- **Steering LIN**
- **Direct line**

Steering LIN

The steering wheel electronics then actuates the following components directly, the signals for this are received by it through the steering LIN from the steering column tube module control unit:

- Multifunction steering wheel button groups (symbol illumination)
- Steering wheel vibration motor (M99) (with CODE 238 (Active Lane Keeping Assist) or CODE 476 (Automatic Lane Recognition))

Location

The steering column tube module control unit is located directly beneath the multifunction steering wheel (MFL) on the steering column tube of the steering column.

- **Evaluation of input factors**
- **Actuation of components**

- Steering column adjustment and steering wheel heater switch (S59/1) (with CODE 443 (Steering wheel heater))

Steering LIN

The steering wheel electronics (N135) directly reads in the signals for the following components and sends them over the steering LIN to the steering column tube module control unit:

- Heating element temperature sensor (R22/4b1) (with CODE 443 (Steering wheel heater))
- Left multifunction steering wheel button group (S110)
- Steering wheel downshift button (S110/1)
- Right multifunction steering wheel button group (S111)
- Steering wheel upshift button (S111/1)

Chassis CAN 1

The signals are imported by the steering column tube module control unit via the chassis CAN 1.

The functions that use these signals are described in the individual function descriptions (see block diagram or function schematic).

Evaluation of input factors

The input factors that have been read in are evaluated by the integrated microprocessor and the relevant components are then actuated.

- Steering wheel heater heating element (R22/4r1) (with CODE 443 (Steering wheel heater))

Direct line

The following components are actuated via direct lines:

- SPEEDTRONIC LED (S40/4v1) (except CODE 494 (USA version))
- Steering wheel heater indicator lamp (S59/1e1) (with CODE 443 (Steering wheel heater))

The following components are actuated directly via looped lines by the supplemental restraint system control unit (N210):

- Driver airbag squib 1 (R12/13)
- Driver airbag squib 2 (R12/14)

	Wiring diagram for steering column module control unit		PE46.10-P-2101-97NAA
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