G30 General Vehicle Electronics

5. Alarm System

Index	Explanation
1	Engine compartment lid contact switch
2	Fuse for front right power distribution box
3	Body Domain Controller (BDC)
4	Door contact, front passenger's side, front
5	CAN terminator
6	Door contact on front passenger's side, rear
7	Fuse for rear right power distribution box
8	Siren with tilt alarm sensor
9	trunk contact switch in the trunk lock
10	Door contact on driver's side, rear
11	Roof function center (FZD)
12	LED in the interior mirror
13	Door contact, driver's side, front

The alarm system in the G30 is equipped with an ultrasonic interior movement detector for monitoring the passenger compartment. The ultrasonic interior movement detector (USIS) is fully integrated in the roof function center (FZD).

The door contacts, engine compartment lid contact switch and the opening of the trunk are monitored by the Body Domain Controller. As soon as a status changes, the ultrasonic interior movement detector receives this information via the K-CAN2. If the alarm system is activated, the siren with tilt alarm sensor is activated by the control unit in the event of a break-in.

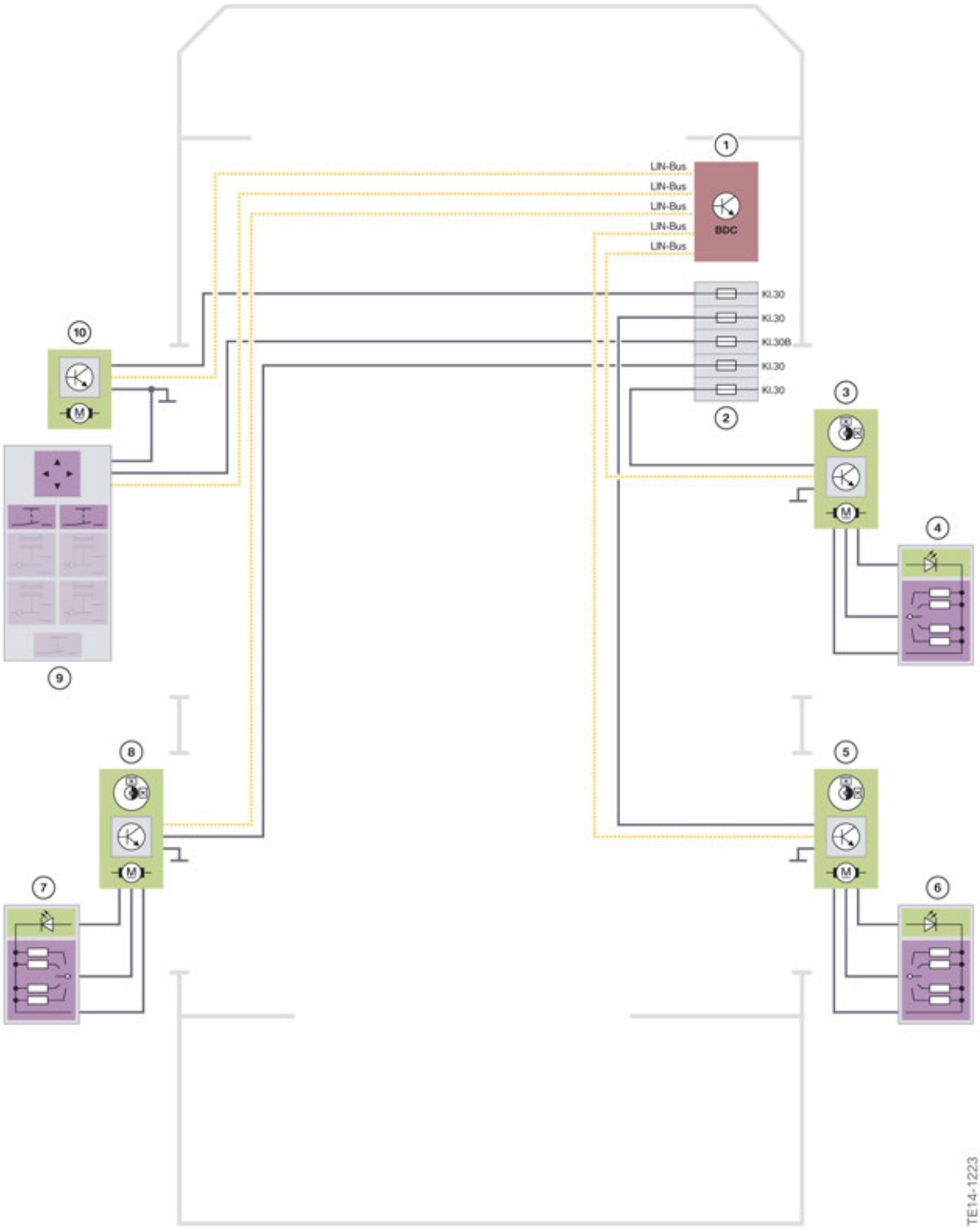
The SINE is connected to the FZD via a local interconnect network bus.

The status of the alarm system is displayed via the LED at the interior mirror.

G30 General Vehicle Electronics

6. Power Windows

6.1. System wiring diagram



Power window regulator

G30 General Vehicle Electronics

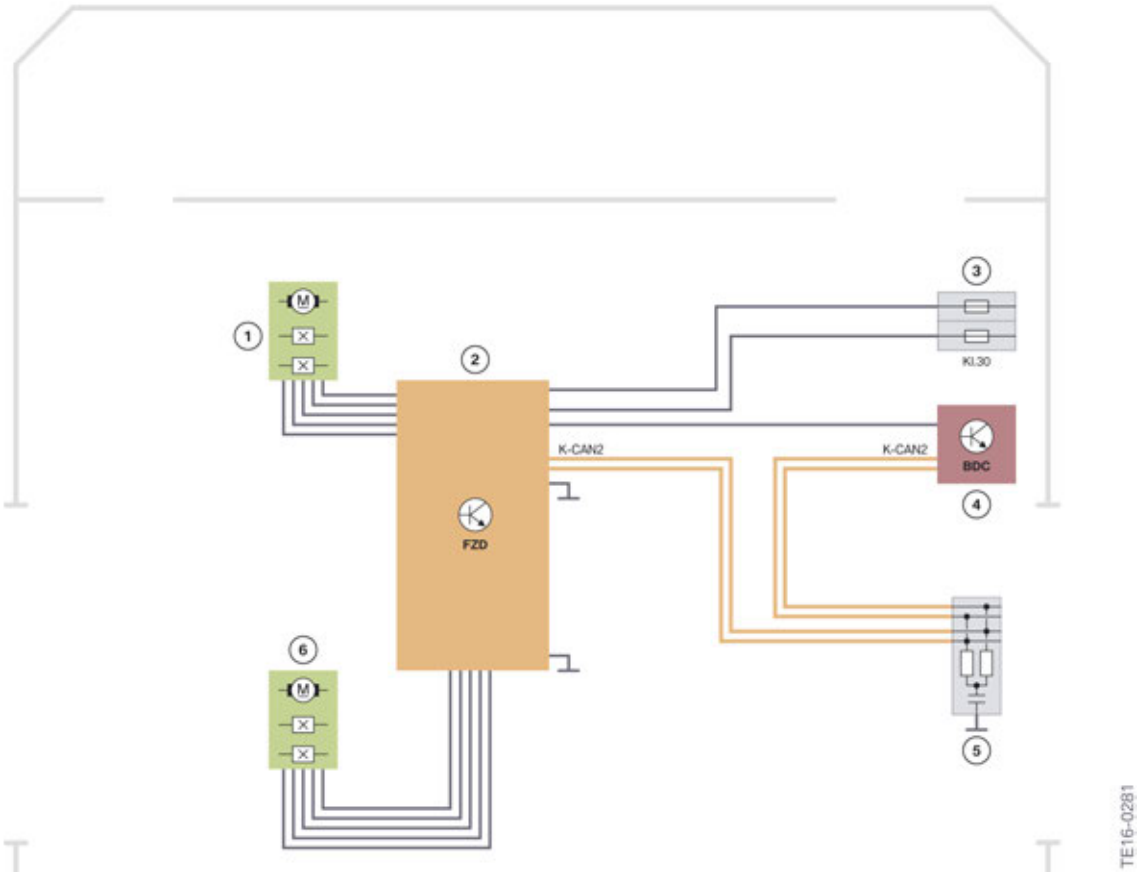
6. Power Windows

Index	Explanation
1	Body Domain Controller (BDC)
2	Fuses in the power distribution box, front right
3	Power window motor, passenger's side
4	Power window switch, front passenger's side, front
5	Power window motor, passenger's side rear
6	Power window switch, front passenger's side rear
7	Power window switch driver's side, rear
8	Power window motor, driver's side rear
9	Switch block, driver's door
10	Power window motor, driver's side front

G30 General Vehicle Electronics

7. Slide/Tilt Sunroof

7.1. System wiring diagram



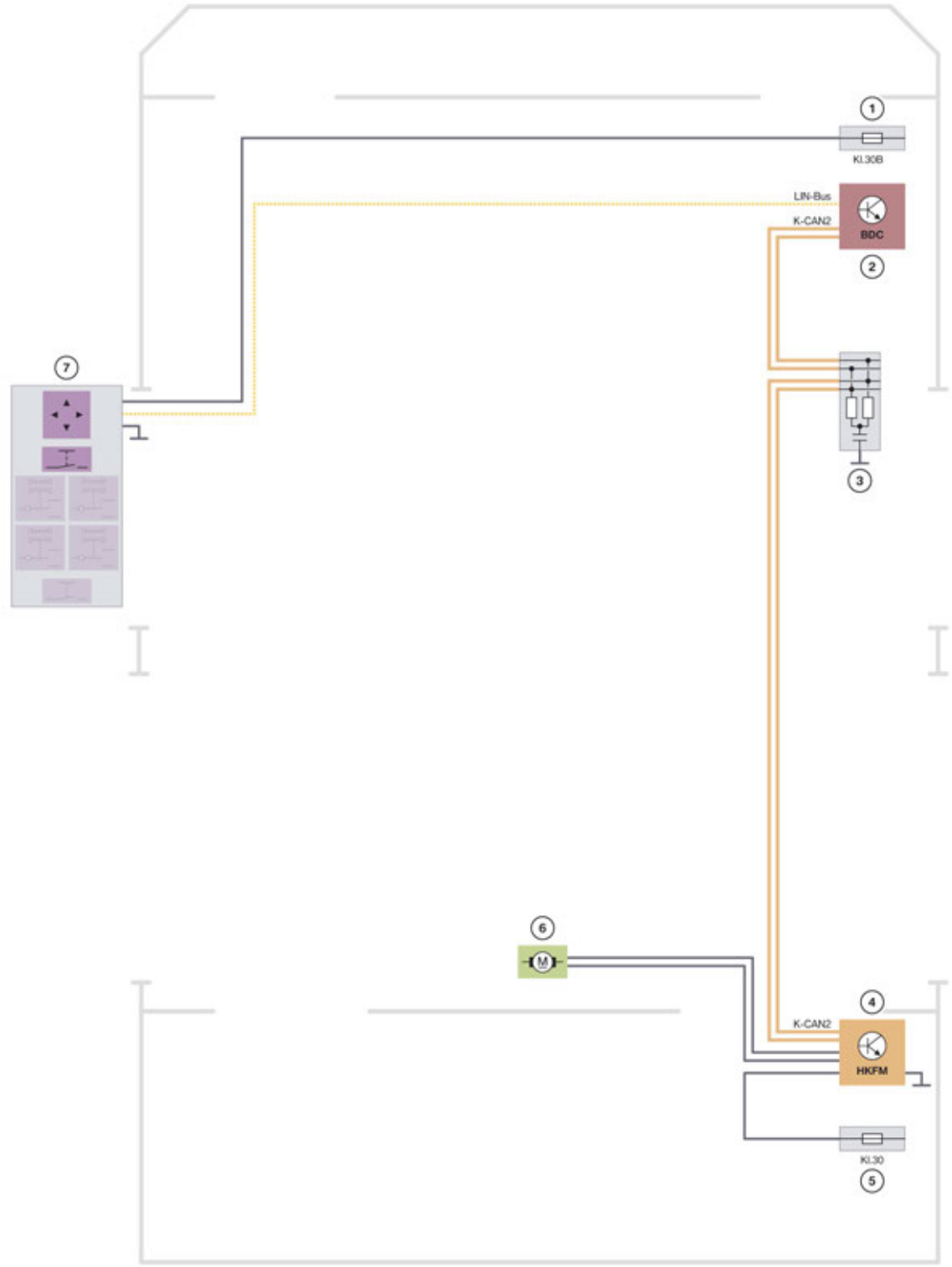
Slide/Tilt sunroof

Index	Explanation
1	Motor, slide/tilt sunroof
2	Roof function center (FZD)
3	Fuses in the power distribution box, front right
4	Body Domain Controller (BDC)
5	CAN terminator
6	Sliding roofliner motor

G30 General Vehicle Electronics

8. Roller Sunblind

8.1. System wiring diagram



Roller sunblind

G30 General Vehicle Electronics

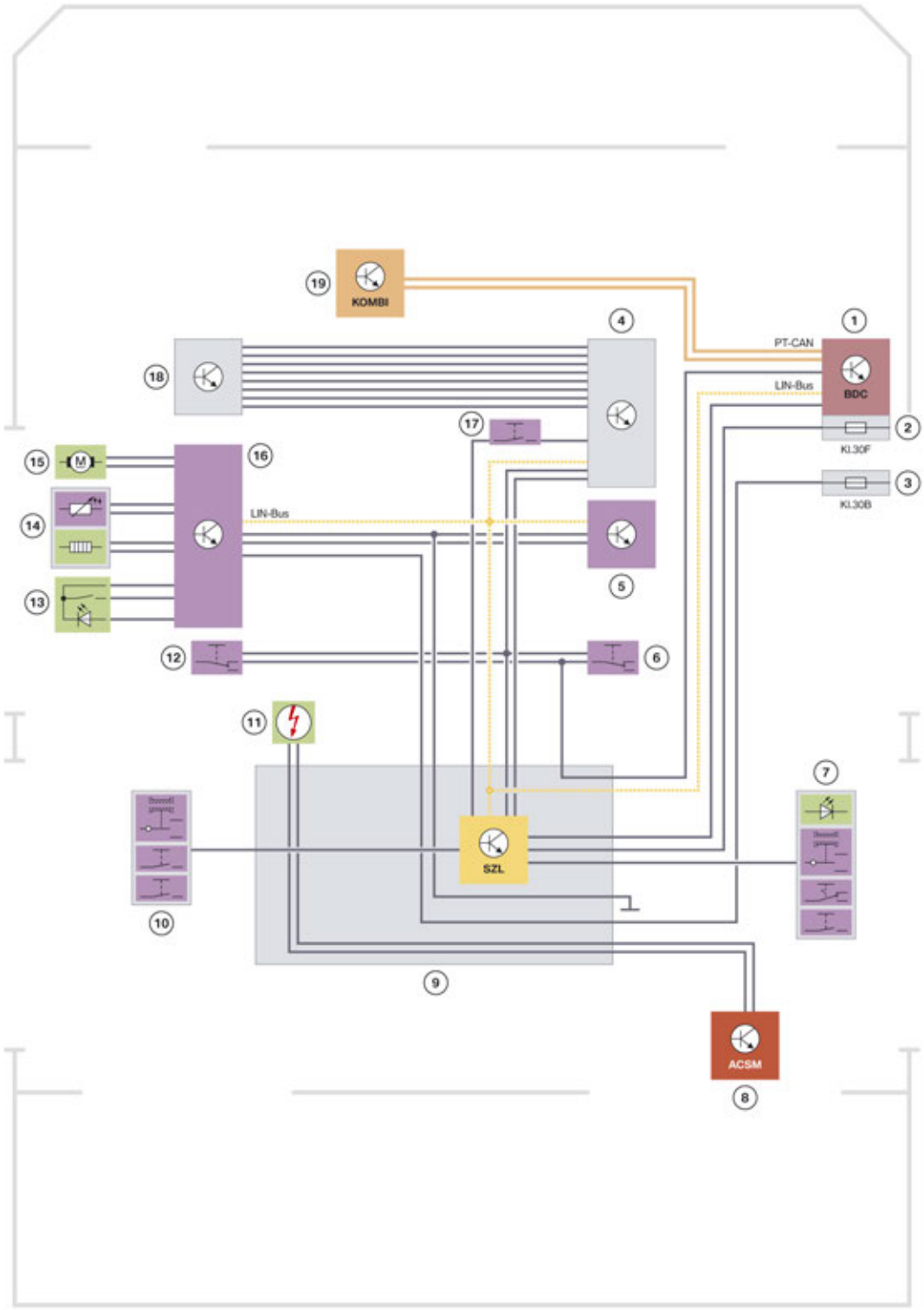
8. Roller Sunblind

Index	Explanation
1	Fuses in the power distribution box, front right
2	Body Domain Controller (BDC)
3	CAN terminator
4	Trunk function module (HKFM)
5	Fuse for rear right power distribution box
6	Roller sunblind motor, rear window
7	Switch block, driver's door

G30 General Vehicle Electronics

9. Steering Column Switch Cluster (SZL)

9.1. System wiring diagram



Steering column switch cluster

G30 General Vehicle Electronics

9. Steering Column Switch Cluster (SZL)

Index	Explanation
1	Body Domain Controller (BDC)
2	Fuse in the Body Domain Controller
3	Fuse for front right power distribution box
4	Multifunction steering wheel buttons, right
5	Touch detection HOD (Hands Off Detection)
6	Shift paddle, right
7	Steering column switch, right
8	Advanced Crash Safety Module (ACSM)
9	Steering column switch cluster (SZL)
10	Steering column switch, left
11	Driver's airbag
12	Shift paddle, left
13	Steering-wheel heating button
14	Steering wheel heating
15	Vibration motor
16	Steering wheel module
17	Horn button
18	Multifunction steering wheel buttons, left
19	Instrument panel (KOMBI)

G30 General Vehicle Electronics

9. Steering Column Switch Cluster (SZL)

9.2. SZL

Steering column switch cluster (SZL)

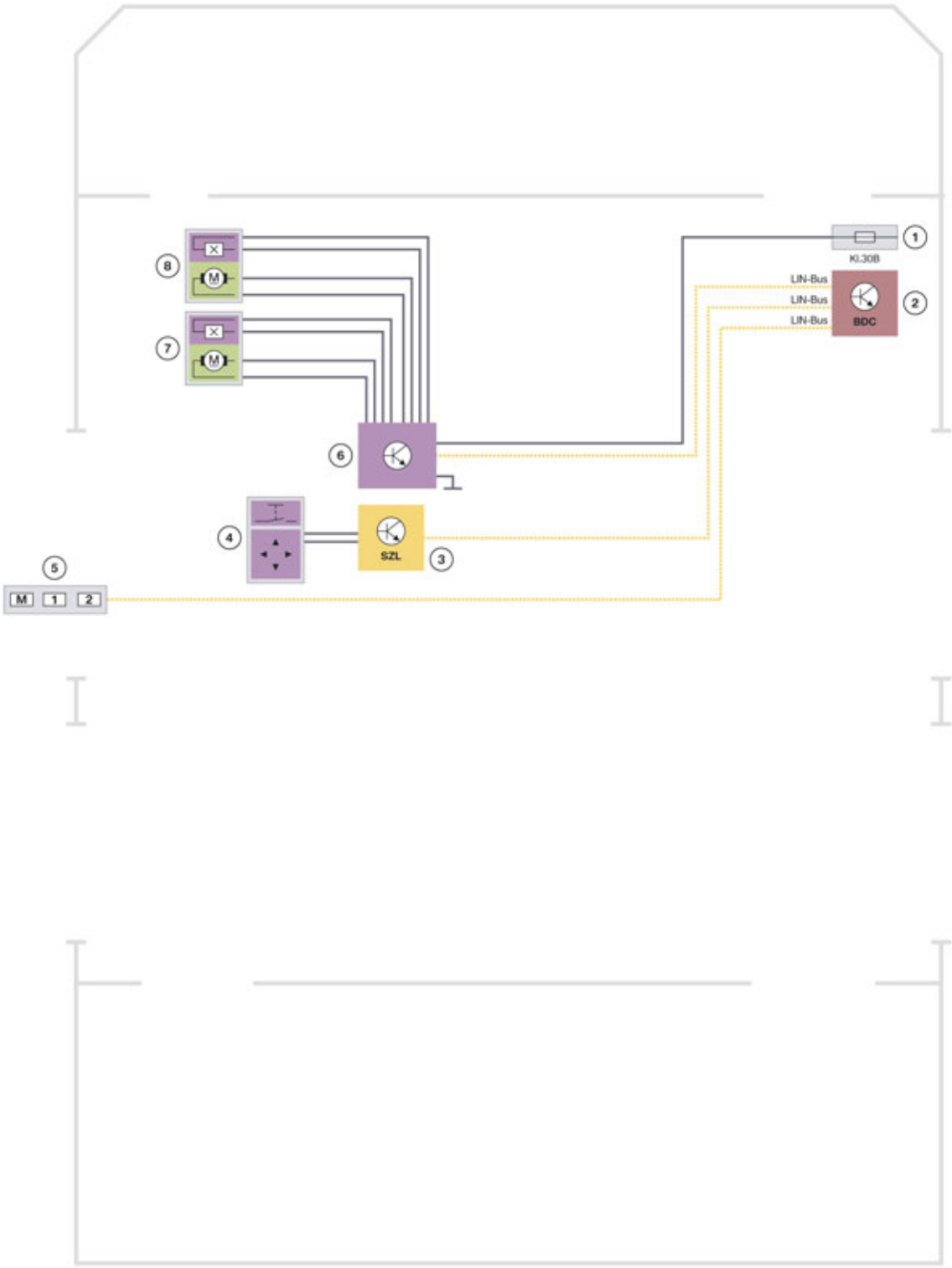
The turn signal/high beam switch on the G30 mechanically engages in the corresponding position when operated. The return is done mechanically by the steering wheel upon returning to center.

All signals of the buttons and switches of the multifunction steering wheel (MFL) and the steering column switch cluster (SZL) are transmitted via Local Interconnect Network (LIN) to the Body Domain Controller (BDC).

G30 General Vehicle Electronics

10. Electric Steering Column

10.1. System wiring diagram



Electric steering column adjustment

G30 General Vehicle Electronics

10. Electric Steering Column

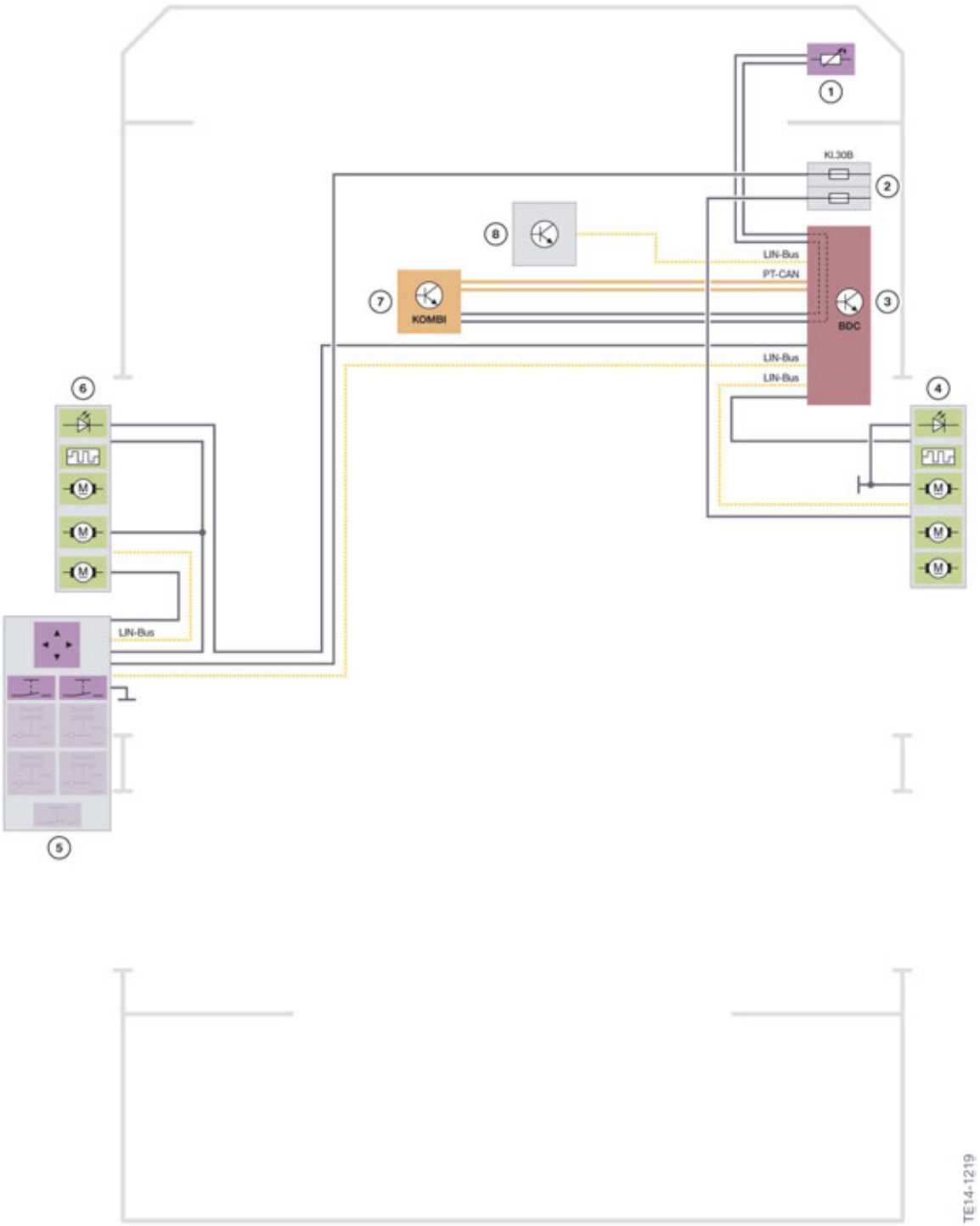
Index	Explanation
1	Fuse for front right power distribution box
2	Body Domain Controller (BDC)
3	Steering column switch cluster (SZL)
4	Steering column adjustment button
5	Memory switch
6	Electronics for steering column adjustment
7	Motor for electric steering column adjustment, height
8	Motor for electric steering column adjustment, vertical

G30 General Vehicle Electronics

11. Exterior Mirrors

11.1. Exterior mirror

11.1.1. System wiring diagram



Exterior mirror

G30 General Vehicle Electronics

11. Exterior Mirrors

Index	Explanation
1	Outside temperature sensor
2	Fuses in the power distribution box, front right
3	Body Domain Controller (BDC)
4	Exterior mirror, front passenger's side
5	Switch block, driver's door
6	Exterior mirror, driver's side
7	Instrument panel (KOMBI)
8	Inside mirror

The instrument cluster receives the value of the ambient temperature from the outside temperature sensor and makes this available via the PT-CAN. The Body Domain Controller evaluates the signal and triggers the activation of the mirror heating via the local interconnect network bus. The control of the heater output is dependent on the ambient temperature.

The mirror servomotors are activated by the mirror electronics. The request for adjusting the exterior mirror is received by the mirror electronics via the local interconnect network bus.

The exterior mirrors still retain the folding in function, but now they can be programmed to automatically fold inward when the vehicle is locked. This feature must be activated in the CID by selecting My Vehicle.

First select “My Vehicle”

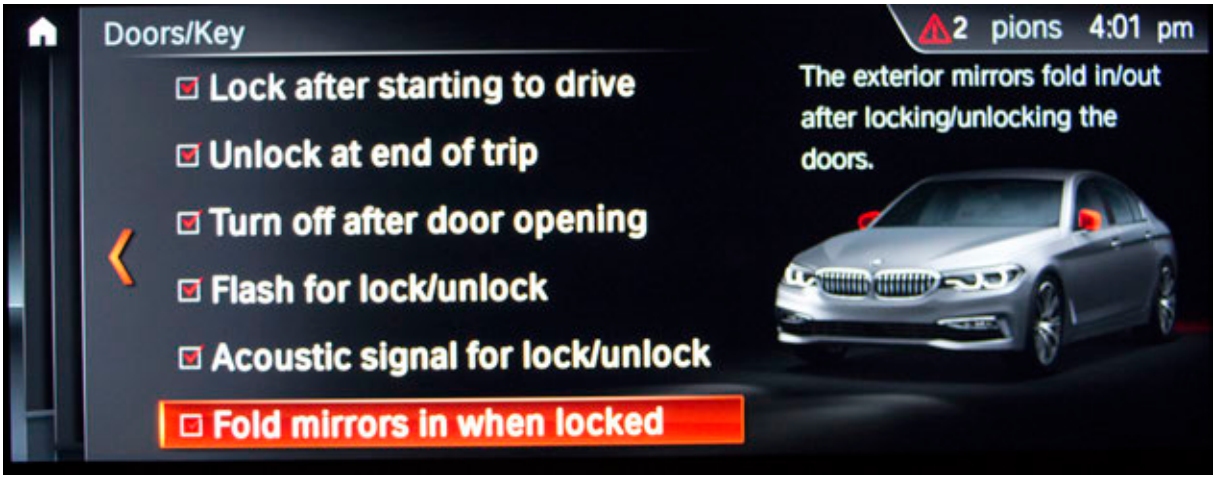
Next select “Vehicle settings”

G30 General Vehicle Electronics

11. Exterior Mirrors

Select “Doors/Key”

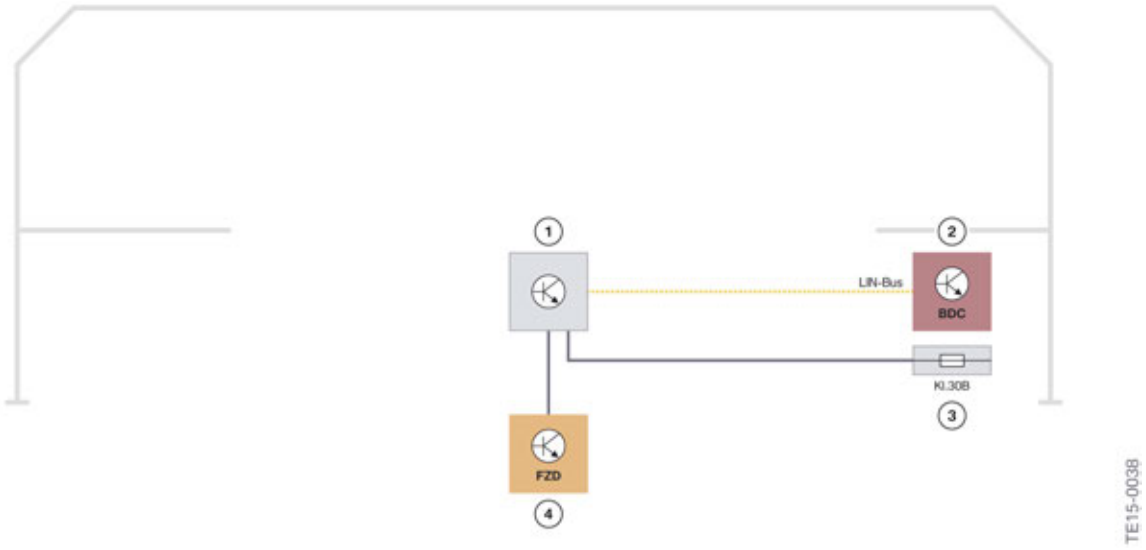
Select “Fold mirrors in when locked”



G30 General Vehicle Electronics

12. Interior Mirror

12.1. System wiring diagram



Inside mirror

Index	Explanation
1	Inside mirror
2	Body Domain Controller (BDC)
3	Fuse for front right power distribution box
4	Roof function center (FZD)

The interior mirror is connected with the Body Domain Controller via LIN bus.

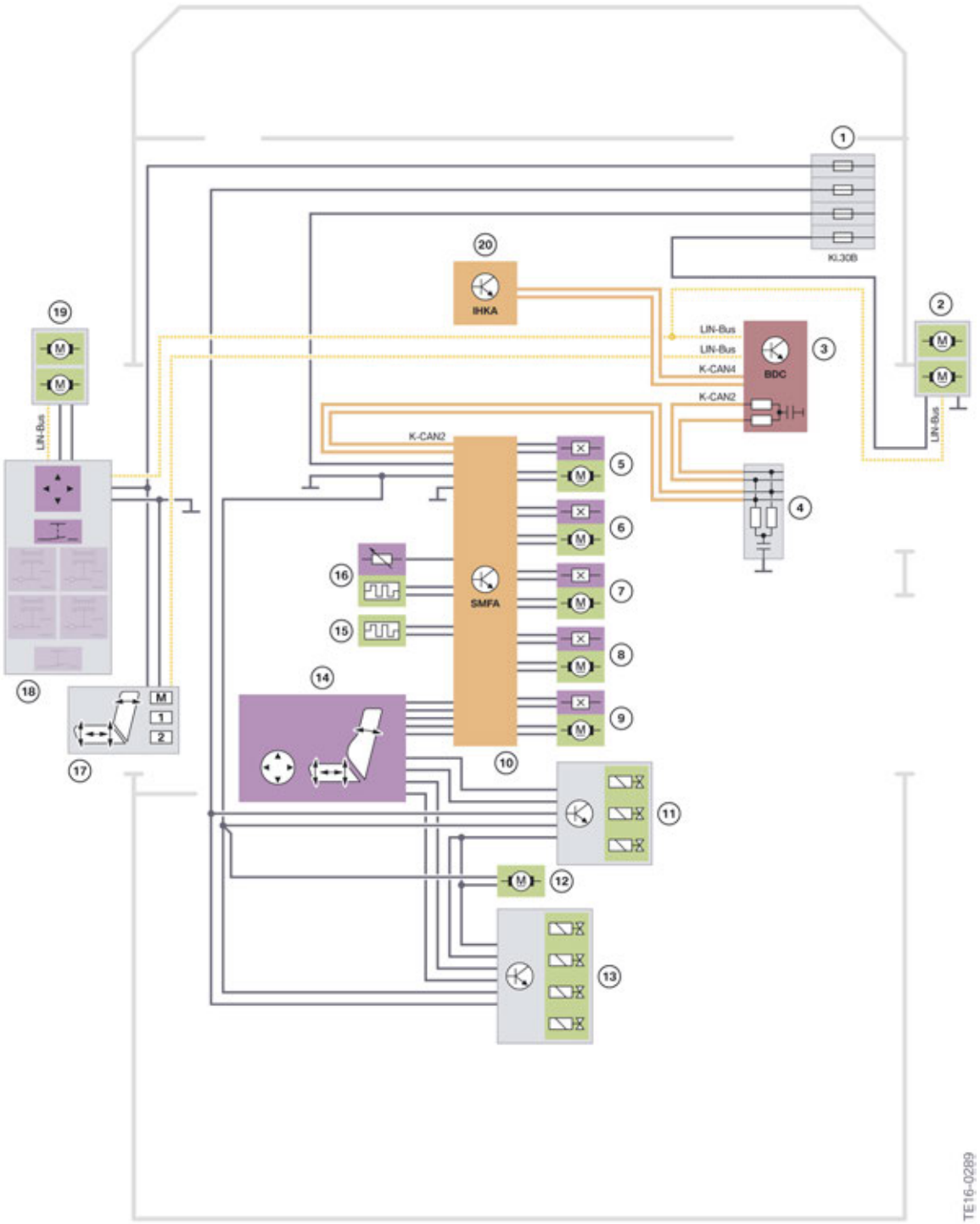
The LED for the alarm system is located in the interior mirror.

G30 General Vehicle Electronics

13. Seats

13.1. Front seats

13.1.1. Memory sports seat, driver's side, front



Memory seat and memory sports seat, driver's side, front

G30 General Vehicle Electronics

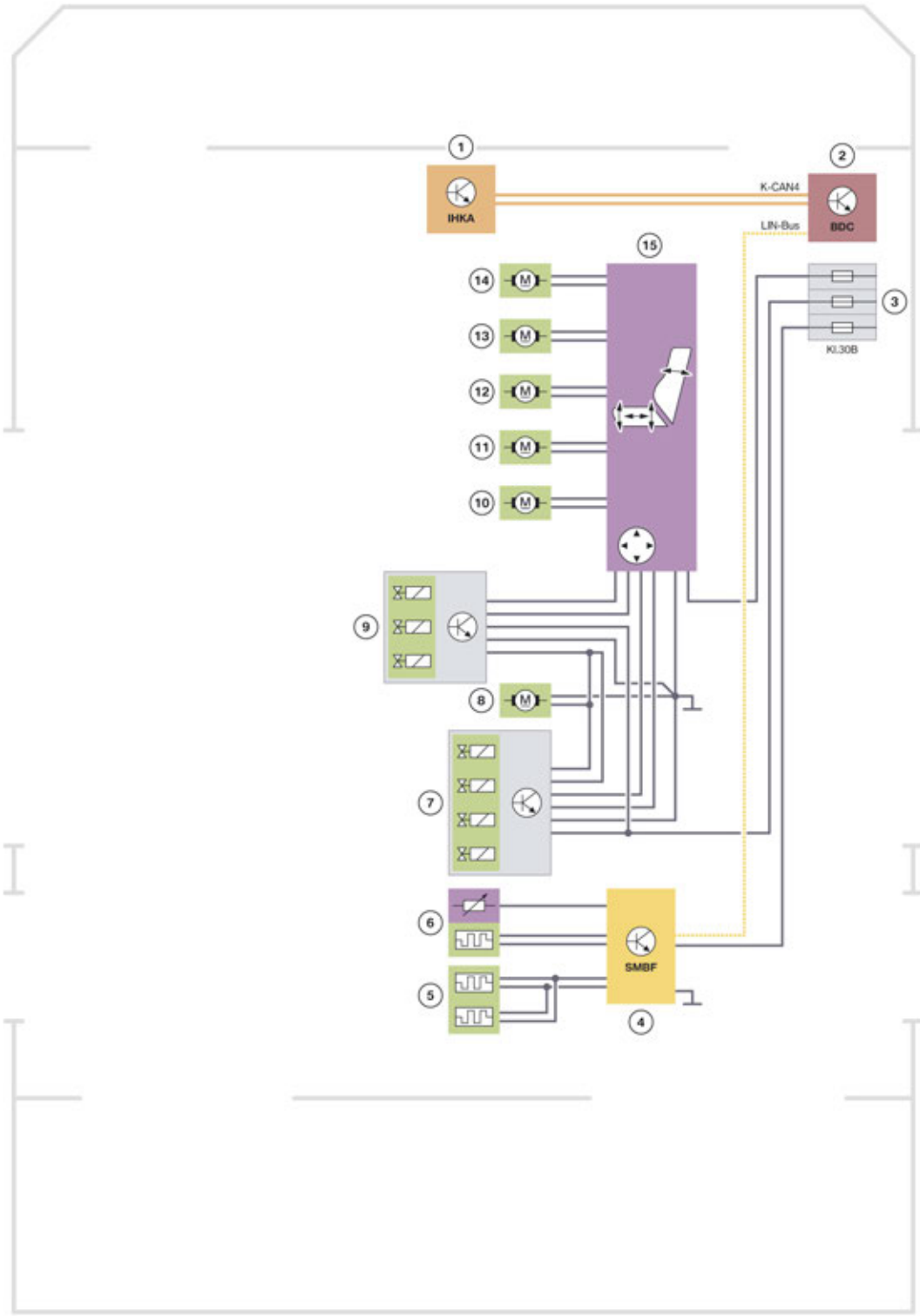
13. Seats

Index	Explanation
1	Fuses in the power distribution box, front right
2	Exterior mirror, front passenger's side
3	Body Domain Controller (BDC)
4	CAN terminator
5	Motor, longitudinal seat adjustment
6	Motor, seat angle adjustment
7	Motor, seat height adjustment
8	Motor, backrest angle adjustment
9	Motor, headrest height adjustment
10	Driver's seat module (SMFA)
11	Valve block, backrest width adjustment
12	Seat pneumatics module pump
13	Valve block, lumbar-support adjustment
14	Switch, seat adjustment
15	Seat heating pad, backrest
16	Seat heating pad, seat surface
17	Memory switch
18	Switch block, driver's door
19	Exterior mirror, driver's side
20	Integrated automatic heating / air conditioning (IHKA)

G30 General Vehicle Electronics

13. Seats

13.1.2. Fully-electric seat, front, passenger's side



Fully-electric seat, front, passenger's side

G30 General Vehicle Electronics

13. Seats

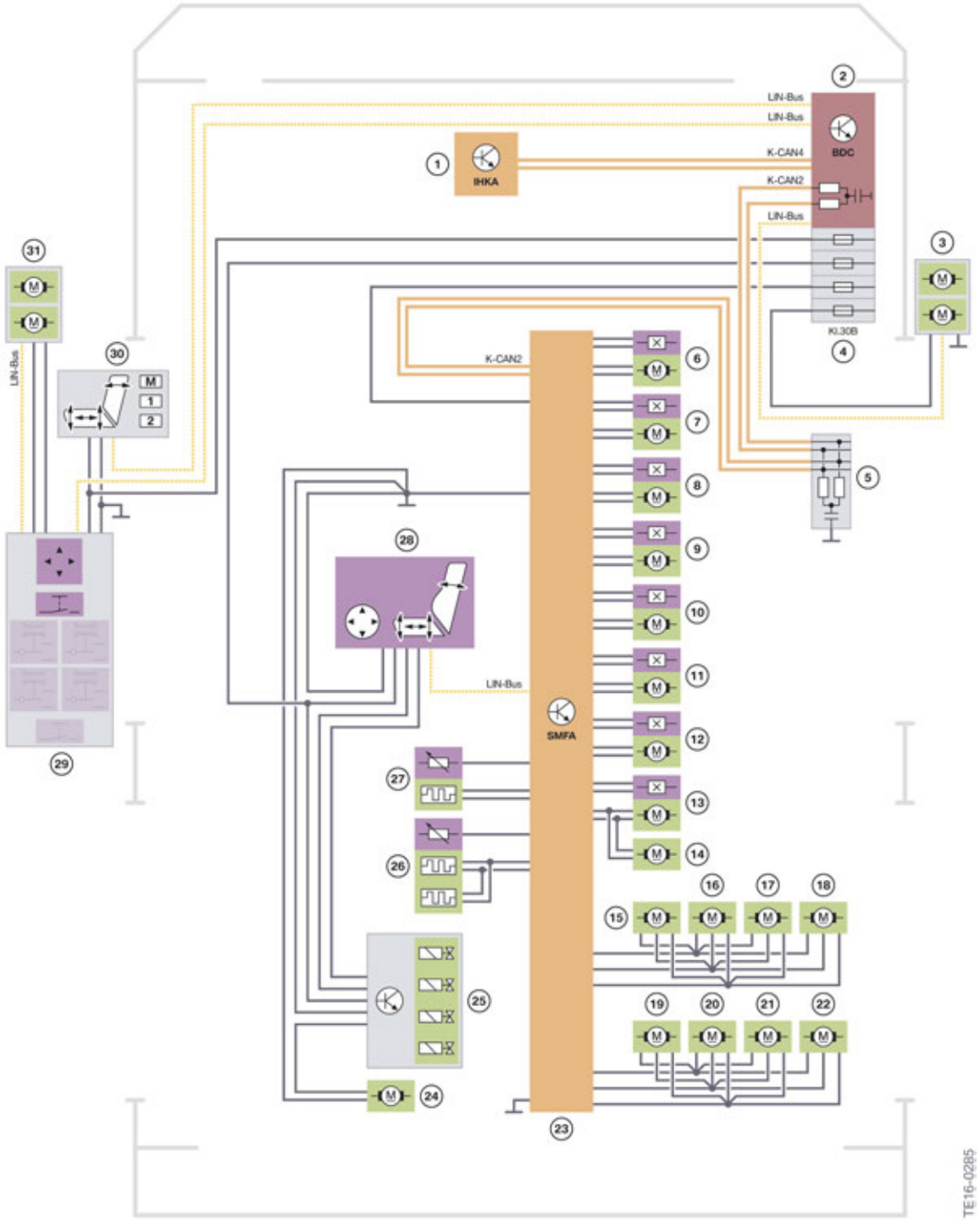
Index	Explanation
1	Integrated automatic heating / air conditioning (IHKA)
2	Body Domain Controller (BDC)
3	Fuses in the power distribution box, front right
4	Seat-heating electronics on front passenger's side
5	Seat heating pad, backrest
6	Seat heating pad, seat surface
7	Valve block, lumbar-support adjustment
8	Seat pneumatics module pump
9	Valve block, backrest width adjustment
10	Motor, seat height adjustment
11	Motor, backrest angle adjustment
12	Motor, headrest height adjustment
13	Motor, seat angle adjustment
14	Motor, longitudinal seat adjustment
15	Switch, seat adjustment

G30 General Vehicle Electronics

13. Seats

13.1.3. Multifunction seat, front

The following wiring diagram shows the seat on the driver's side. The passenger's side is identical but reversed left-to-right.



Multifunction seat, front, driver's side

G30 General Vehicle Electronics

13. Seats

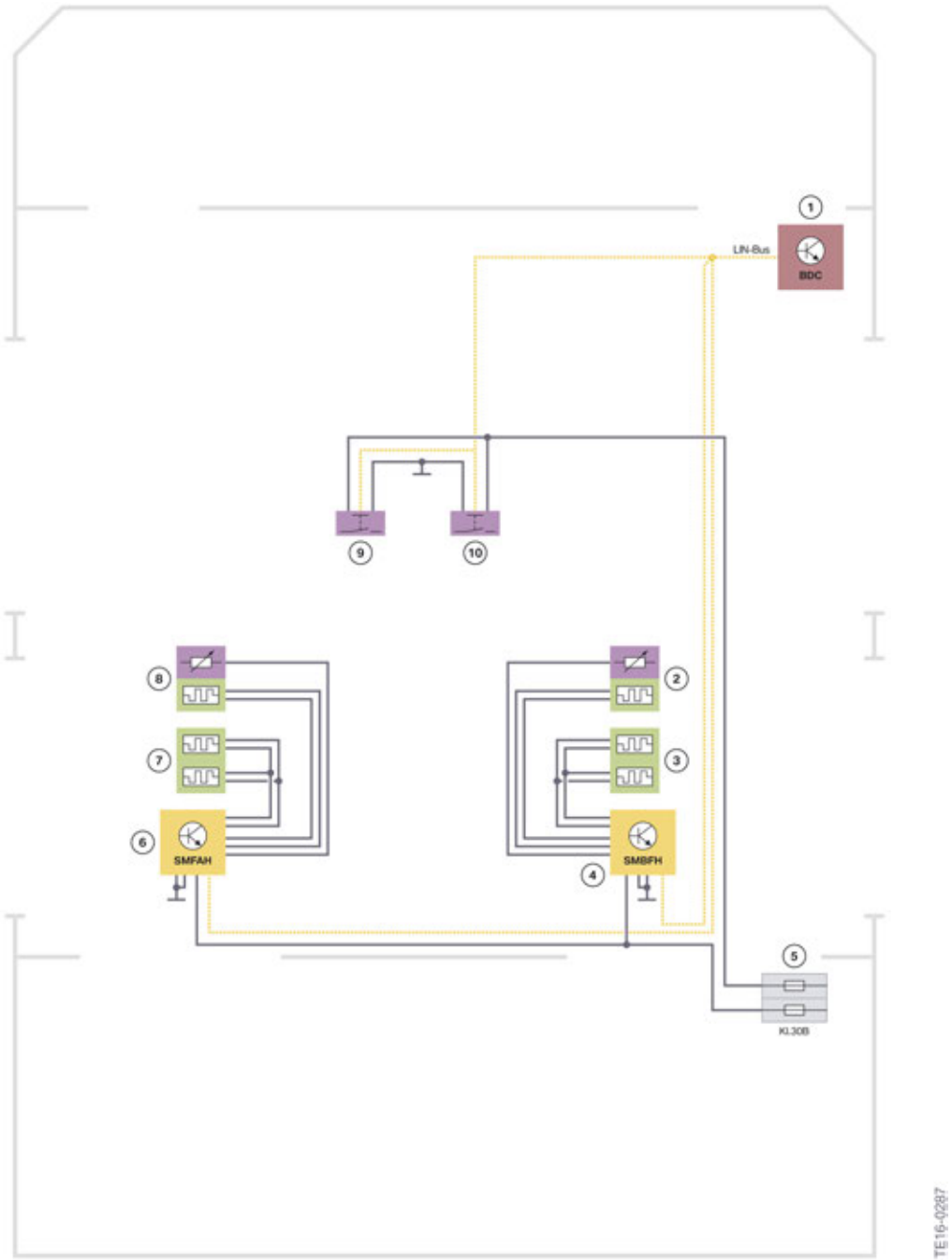
Index	Explanation
1	Integrated automatic heating / air conditioning (IHKA)
2	Body Domain Controller (BDC)
3	Exterior mirror, front passenger's side
4	Fuses in the power distribution box, front right
5	CAN terminator
6	Motor, longitudinal seat adjustment
7	Motor, seat angle adjustment
8	Motor, seat height adjustment
9	Motor, backrest angle adjustment
10	Motor, headrest height adjustment
11	Motor, seat depth adjustment
12	Motor, backrest head adjustment
13	Motor, backrest width adjustment
14	Motor, backrest width adjustment
15	Motor, active seat ventilation, seat surface
16	Motor, active seat ventilation, seat surface
17	Motor, active seat ventilation, seat surface
18	Motor, active seat ventilation, seat surface
19	Motor, active seat ventilation, backrest surface
20	Motor, active seat ventilation, backrest surface
21	Motor, active seat ventilation, backrest surface
22	Motor, active seat ventilation, backrest surface
23	Driver's seat module (SMFA)
24	Seat pneumatics module pump
25	Valve block, lumbar-support adjustment
26	Seat heating pad, backrest
27	Seat heating pad, seat surface
28	Switch, seat adjustment
29	Switch block, driver's door
30	Memory switch
31	Exterior mirror, driver's side

G30 General Vehicle Electronics

13. Seats

13.2. Rear seats

13.2.1. Seat heating, rear passenger compartment



Seat heating, basic seat, rear passenger compartment

Index	Explanation
1	Body Domain Controller (BDC)
2	Seat heating pad, seat surface, passenger’s side rear
3	Seat heating pad, backrest, passenger’s side rear
4	Seat-heating electronics, rear passenger's side
5	Fuse in the rear power distribution box
6	Seat-heating electronics, rear driver's side
7	Seat heating pad, backrest, driver’s side rear
8	Seat heating pad, seat surface, driver’s side rear
9	Seat-heating switch, rear left
10	Seat-heating switch, rear right

13.3. Massage

Eight different massage functions in the backrest and seat cushion are available to activate or relax muscles. This allows the back muscles to be relaxed and the strain on the spinal discs to be relieved. The 8 programs are divided into 3 categories:

- Mobilization
- Relaxation
- Vitalization

In the case of mobilization, the strain on the spine is relieved by targeted body movements.

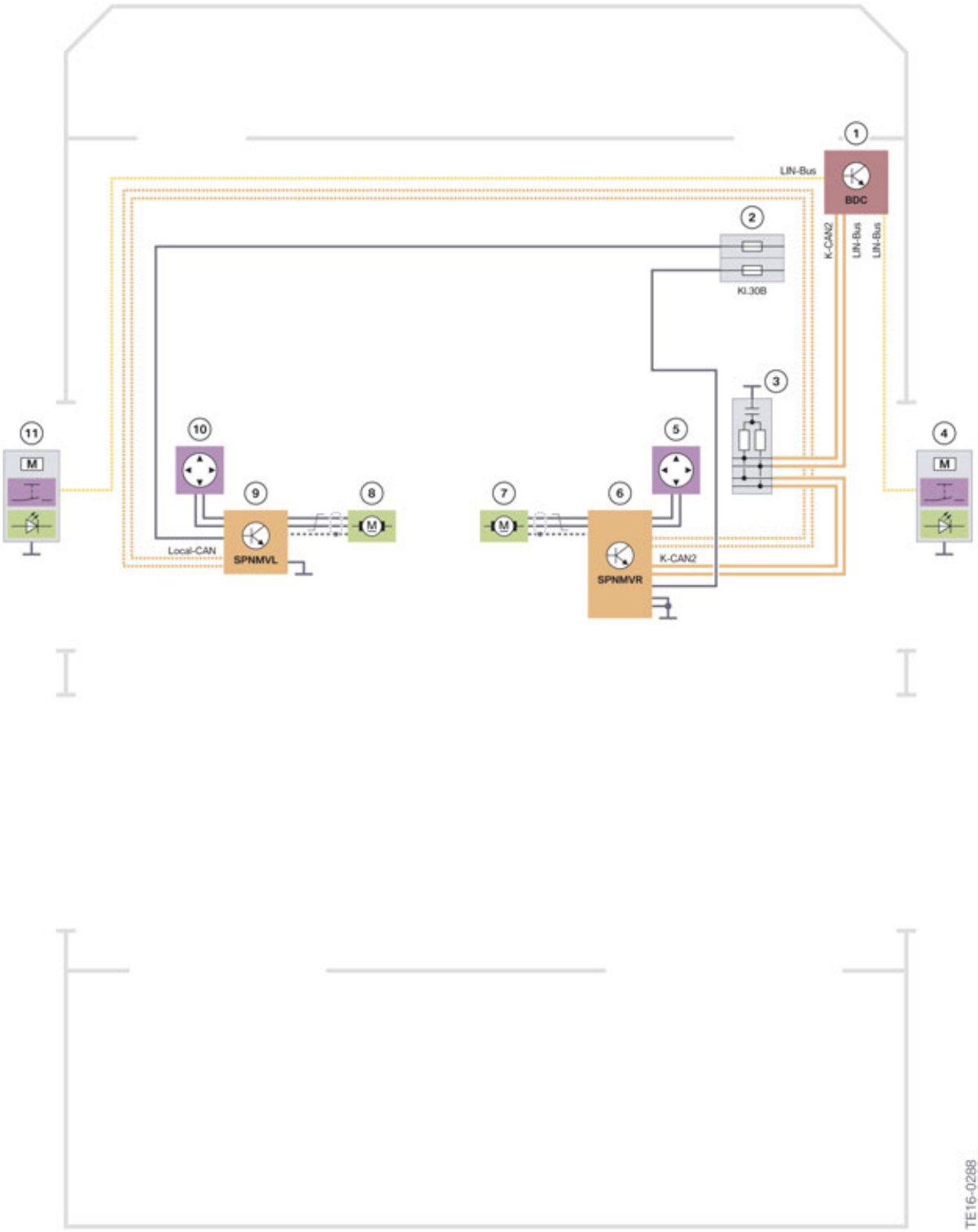
In the relaxation program, the muscles are relaxed by massage.

The vitalization program is made up of both mobilization and relaxation. The combination of movement and massage ensures relaxation and recuperation, particularly on long drives.

G30 General Vehicle Electronics

13. Seats

13.3.1. Seat massage, both front seats



Seat massage, both front seats

G30 General Vehicle Electronics

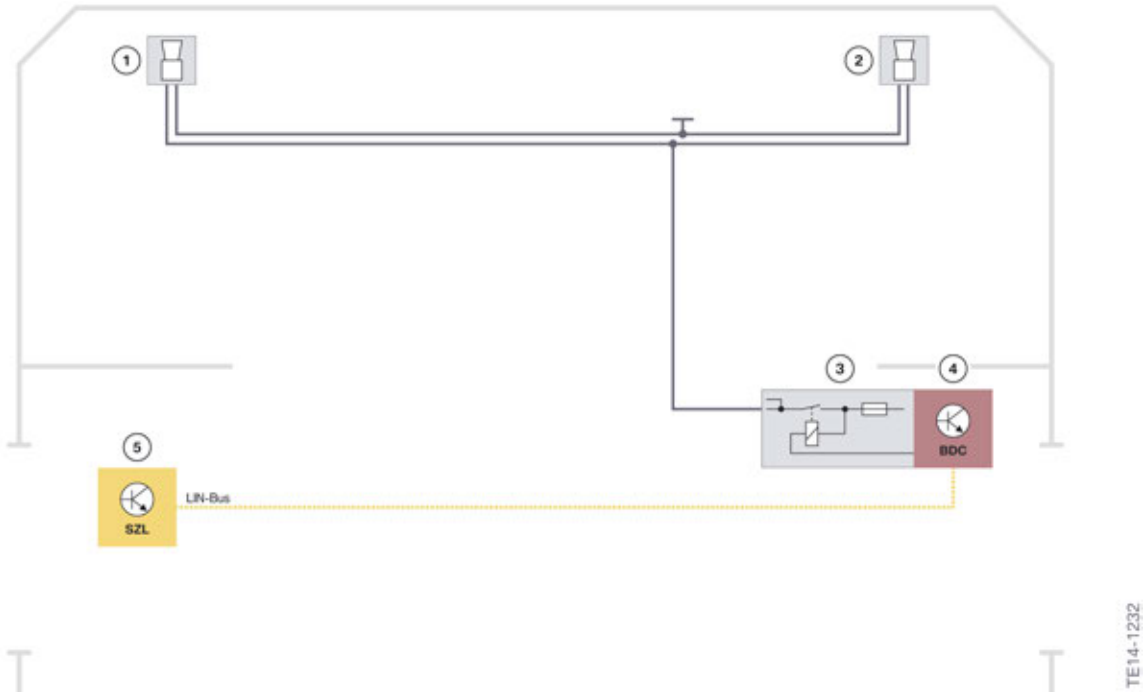
13. Seats

Index	Explanation
1	Body Domain Controller (BDC)
2	Fuse for front right power distribution box
3	CAN terminator
4	Switch block, front passenger door
5	Switch, lumbar support, front passenger seat
6	Seat pneumatics module front right
7	Seat pneumatics module pump, front passenger seat
8	Seat pneumatics module pump, driver's seat
9	Seat pneumatics module front left
10	Switch, lumbar support, driver's seat
11	Switch block, driver's door

G30 General Vehicle Electronics

14. Horn

14.1. System wiring diagram



Horns

Index	Explanation
1	Horn, left
2	Horn, right
3	Relay in the Body Domain Controller
4	Body Domain Controller (BDC)
5	Steering column switch cluster (SZL)

Signal path of horn:

- When the horn is pressed the signal is received by the steering column switch cluster (SZL).
- The SZL sends the information via the LIN bus to the Body Domain Controller.
- The Body Domain Controller evaluates the information and activates the relay for the horn.

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