

# Technical training. Product information.

## G05 Body



**BMW Service**

Edited for the U.S. market by:  
**BMW Group University**  
**Technical Training**

ST1831

9/1/2018

# General information

## Symbols used

The following symbol is used in this document to facilitate better comprehension or to draw attention to very important information:



---

Contains important safety information and information that needs to be observed strictly in order to guarantee the smooth operation of the system.

---

## Information status: July 2018

BMW Group vehicles meet the requirements of the highest safety and quality standards. Changes in requirements for environmental protection, customer benefits and design render necessary continuous development of systems and components. Consequently, there may be discrepancies between the contents of this document and the vehicles available in the training course.

The information contained in the training course materials is solely intended for participants in this training course conducted by BMW Group Technical Training Centers, or BMW Group Contract Training Facilities.

This training manual or any attached publication is not intended to be a complete and all inclusive source for repair and maintenance data. It is only part of a training information system designed to assure that uniform procedures and information are presented to all participants.

For changes/additions to the technical data, repair procedures, please refer to the current information issued by BMW of North America, LLC, Technical Service Department.

This information is available by accessing TIS at [www.bmwcenternet.com](http://www.bmwcenternet.com).

## Additional sources of information

Further information on the individual topics can be found in the following:

- Owner's Handbook
- Integrated Service Technical Application
- Aftersales Information Research (AIR)

**The information contained in this manual is not to be resold, bartered, copied, or transferred without the express written consent of BMW of North America, LLC ("BMW NA").**

©2018 BMW of North America, LLC

The BMW name and logo are registered trademarks. All rights reserved.

# G05 Body

## Contents

<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
1.1.	Overview.....	1
1.2.	History of X5.....	2
1.3.	Dimensions and comparison of outlines.....	2
1.3.1.	Dimensions of G05.....	2
1.3.2.	Comparison of F15/G05.....	4
1.3.3.	Comparison of outlines.....	4
1.4.	Models.....	5
1.4.1.	Weights and payload.....	5
<b>2.</b>	<b>5. Exterior Trim.....</b>	<b>6</b>
2.1.	Exterior trim.....	6
2.2.	Vehicle underbody.....	6
<b>3.</b>	<b>Bodyshell.....</b>	<b>8</b>
3.1.	Body structure.....	8
3.1.1.	Material overview.....	8
<b>4.</b>	<b>Body Repair Level 1.....</b>	<b>9</b>
4.1.	Repair Level 1.....	9
4.2.	Outer body skin materials.....	9
4.3.	Upper section of tailgate.....	10
4.4.	Lower section of tailgate.....	11
<b>5.</b>	<b>Heating/Air Conditioning Systems.....</b>	<b>16</b>
5.1.	3/2-zone IHKA.....	16
5.2.	4/3-zone IHKA.....	18
<b>6.</b>	<b>Interior Equipment.....</b>	<b>19</b>
6.1.	Overview.....	19
6.2.	Lines.....	20
6.3.	Thermoelectric cup holder.....	21
6.4.	Seats.....	23
6.4.1.	Front seats.....	23
6.4.2.	Second row of seats.....	24
6.4.3.	Second row of seats, electric.....	25
6.4.4.	Third row of seats.....	29
<b>7.</b>	<b>Luggage Compartment.....</b>	<b>31</b>
7.1.	Luggage compartment capacity.....	31
7.1.1.	Electric roller cover for luggage compartment.....	32
7.1.2.	Luggage compartment floor.....	37



# G05 Body

## 1. Introduction

### 1.1. Overview

In November 2018 after 5 years the G05 will replace its predecessor the F15 with the 4th generation of the BMW X5. The G05 contains an abundance of new technologies and further developments. From a design perspective there is no longer a direct connection between the headlights and the BMW radiator grill. This design feature has already been introduced in the G01 (BMW X3). The larger wide BMW radiator grill, however, features more prominently in a more upright arrangement in the air stream.

In terms of technology, the new BMW X5 is based on the G12. The topics listed below are described in the G12 product information brochures.

Topic	Product information
Heating and air conditioning system	G12 Complete Vehicle
Lightweight support, door	G12 Complete Vehicle
Self-tapping screws	G12 Complete Vehicle
Active front flap	G12 Complete Vehicle
Switch, seat adjustment	G12 Complete Vehicle
Massage function	G12 Complete Vehicle
Refrigerant line (inner heat exchanger IWT)	G12 Complete Vehicle
Refrigerant R1234yf	G12 Complete Vehicle
Coolant-cooled air conditioning condenser	G12 Complete Vehicle



G05

# G05 Body

## 1. Introduction

### 1.2. History of X5

In autumn 1999 BMW presented the first generation of the BMW X5, the E53, at the North American International Auto Show and in doing so justified the segment of Sports Activity Vehicles (SAV). The second generation, the E70, followed at the end of 2006 and from November 2013 the third generation, the F15, will be available in dealerships. The appearance characteristic of BMW X models combines design features typical of the BMW brand with clear signals for presence, robustness and diversity. The resulting design was further developed for the new BMW X5 in a modern and distinctive way.



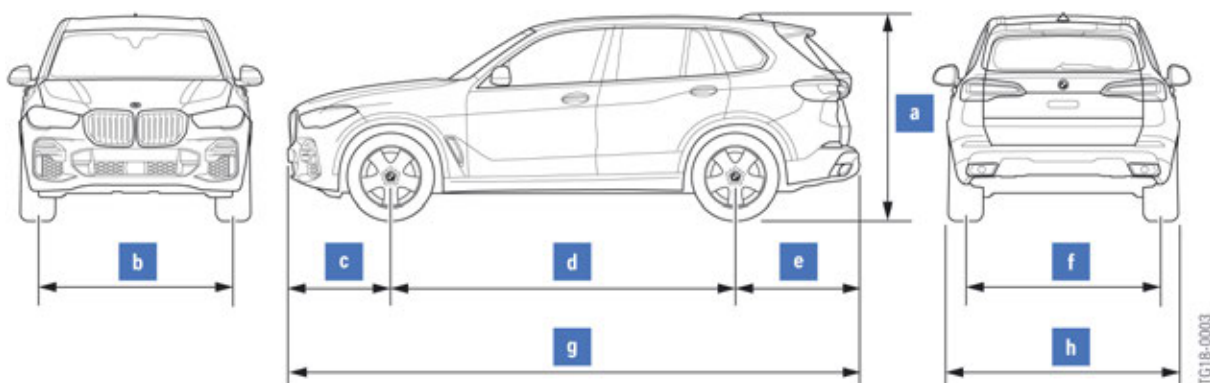
History of BMW X5 models

1st generation	2nd generation	3rd generation	4th generation
E53 1999–2006	E70 2006–2013	F15 2013–2018	G05 2018

### 1.3. Dimensions and comparison of outlines

#### 1.3.1. Dimensions of G05

The dimensions of the G05 are set out in the following graphic. In direct comparison with its predecessor, the F15, the G05 has increased slightly in all dimensions, but thanks to its successful design this is not predominant.

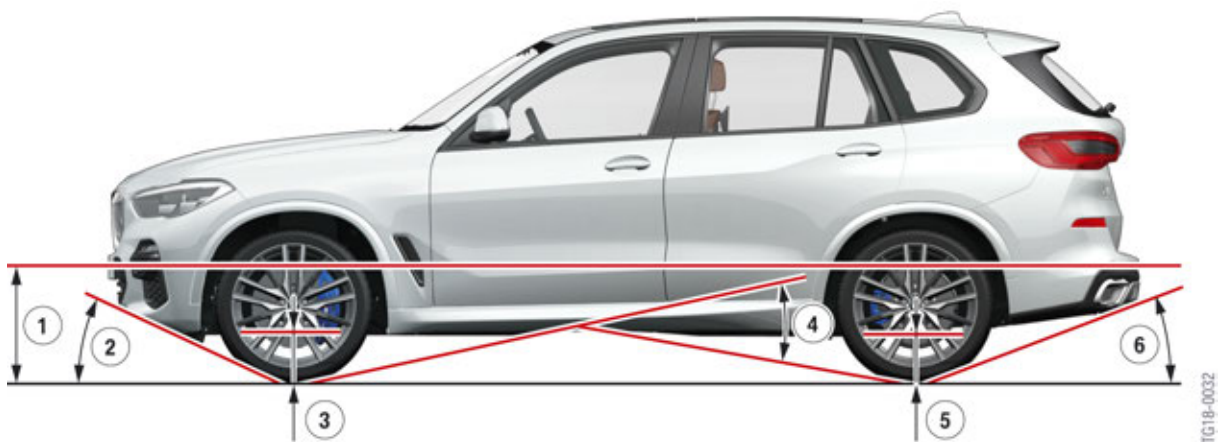


G05 outer dimensions

# G05 Body

## 1. Introduction

Index	Explanation	Unit	G05
a	Vehicle height, empty	[mm]	1744
b	Front track width, basic wheels	[mm]	1666
c	Front overhang	[mm]	888
d	Wheelbase	[mm]	2975
e	Rear overhang	[mm]	1073
f	Rear track width, basic wheels	[mm]	1684
g	Vehicle length	[mm]	4936
h	Vehicle width excluding exterior rearview mirrors	[mm]	2004



G05 ground clearances

Index	Explanation	Unit	F15 X5 xDrive50i	G05 X5 xDrive50i
1	Fording depth	[mm]	500	500
2	Front overhang angle	Degree	25	25.2
3	Front axle clearance	[mm]	194	214
4	Ramp angle	Degree	20	21.6
5	Axle clearance, rear	[mm]	200	214
6	Rear overhang angle	Degree	22.5	21.6

# G05 Body

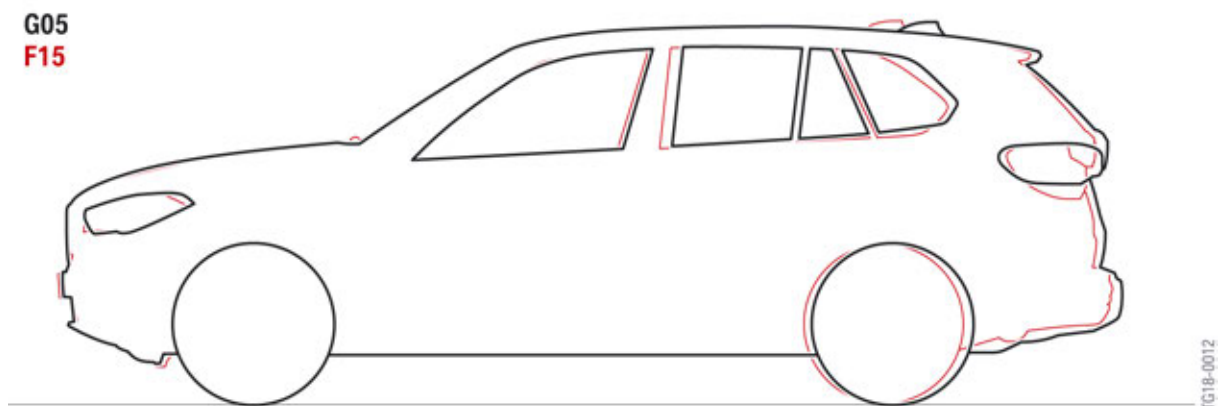
## 1. Introduction

### 1.3.2. Comparison of F15/G05

The most important data of the F15 and the G05 are shown in direct comparison in the following table. A BMW X5 xDrive40i is used as the basis in the G05.

Explanation	Unit	F15	G05
Vehicle height, empty	[mm]	1762	1744
Front track width	[mm]	1644	1666
Front overhang	[mm]	890	888
Wheelbase	[mm]	2968	2975
Rear overhang	[mm]	1063	1073
Rear track width	[mm]	1650	1684
Vehicle length	[mm]	4886	4936
Vehicle width excluding exterior rearview mirrors	[mm]	1938	2004
Turning circle diameter.	[m]	12.7	12.6
Shoulder room, front	[mm]	1537	1525
Shoulder room, rear	[mm]	1482	1476
Elbow room, front	[mm]	1562	1560
Elbow room, rear	[mm]	1525	1525
Maximum headroom, front	[mm]	1029	1037
Maximum headroom, rear	[mm]	973	984
Luggage compartment capacity (without spare wheel)	[l]	650	650

### 1.3.3. Comparison of outlines



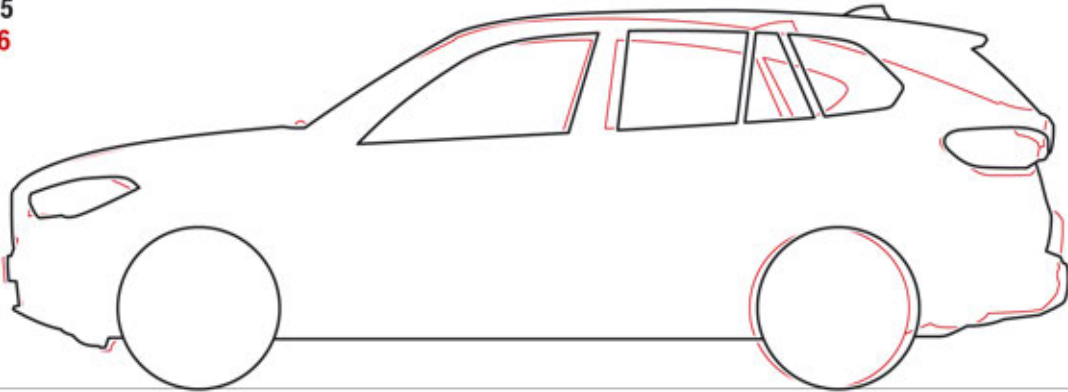
Silhouette comparison of G05/F15



# G05 Body

## 1. Introduction

G05  
F16



TC18-0014

Silhouette comparison of G05/F16

### 1.4. Models

The G05 will be available at market introduction in the following models and exclusively with automatic transmission.

Model	Engine	Displacement in cm <sup>3</sup>	Power in kW (HP)	Torque in Nm (lb-ft)
BMW X5 xDrive50i	8-cylinder engine	4395	340 (456)	650 (479)
BMW X5 xDrive40i	6-cylinder engine	2998	250 (335)	450 (330)

#### 1.4.1. Weights and payload

Models	Unit	Vehicle curb weight (US)
BMW X5 xDrive50i	lbs	5170
BMW X5 xDrive40i	lbs	4991

# G05 Body

## 2. 5. Exterior Trim

### 2.1. Exterior trim



TG18-0021\_2

G05 exterior highlights

Index	Explanation
1	Air flaps in the BMW radiator grill
2	Headlights do not extend to the BMW radiator grill
3	KAFAS camera high (with 3 cameras)
4	Air breather
5	LED rear lights (on all models)

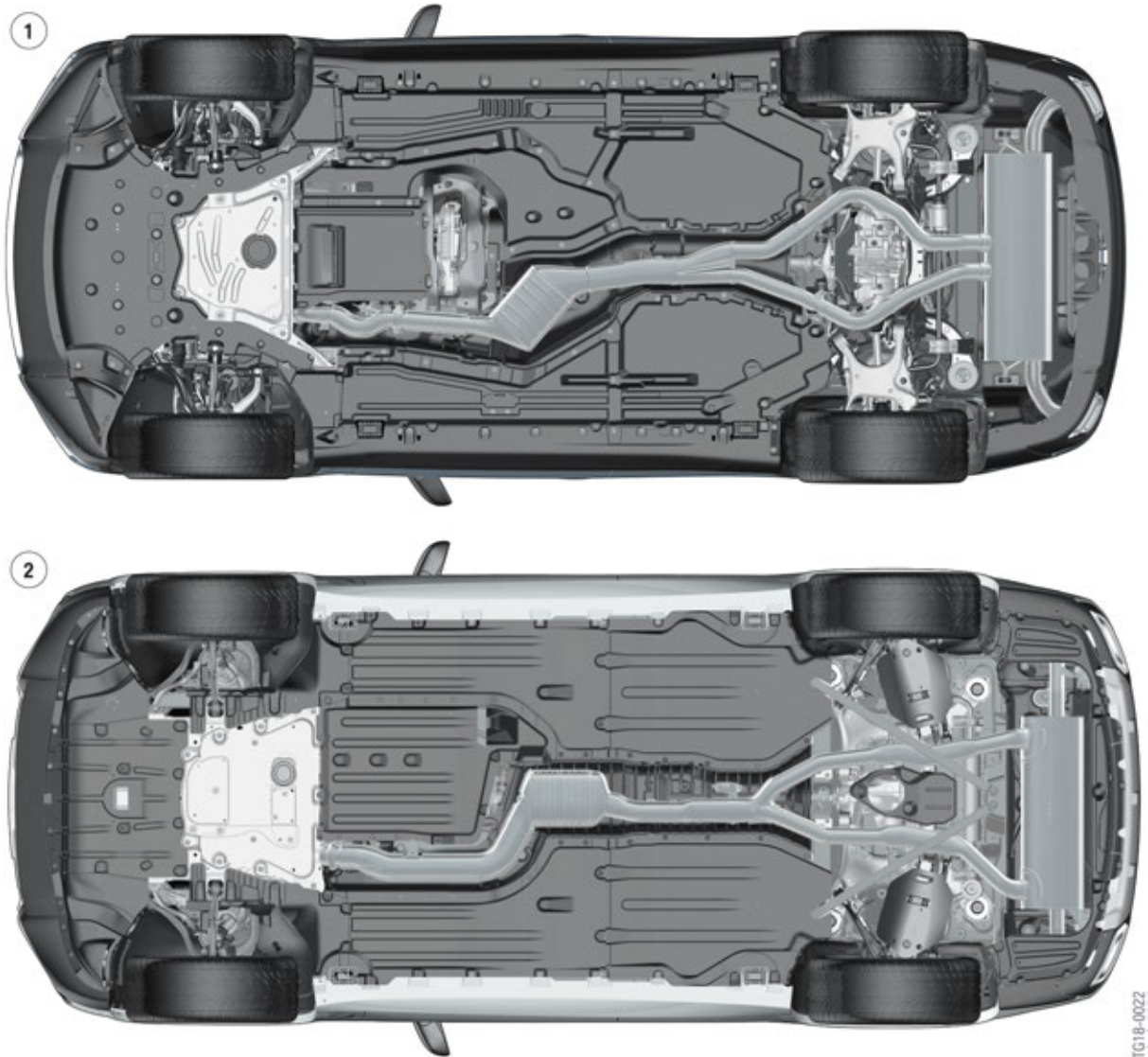
### 2.2. Vehicle underbody

The almost fully closed vehicle underbody plays an important role in the aerodynamics and in reducing CO<sup>2</sup> emissions. The acoustics in the vehicle are also significantly improved as a result. The use of textile material improves the external acoustics and at the same time reduces weight. In the front section, the air flow is directed past the front wheels with precision by the diffusers. In this way, direct

# G05 Body

## 2. 5. Exterior Trim

impact of the flow on the front wheel is reduced. In the rear area, the 2 wind deflectors on the axle and the cover of the rear axle differential contribute to optimized underbody flow together with the diffuser, which is adapted to suit the motorization.



G05 vehicle underbody comparison with the F15

Index	Explanation
1	Underbody panelling on the F15
2	Underbody panelling on the G05

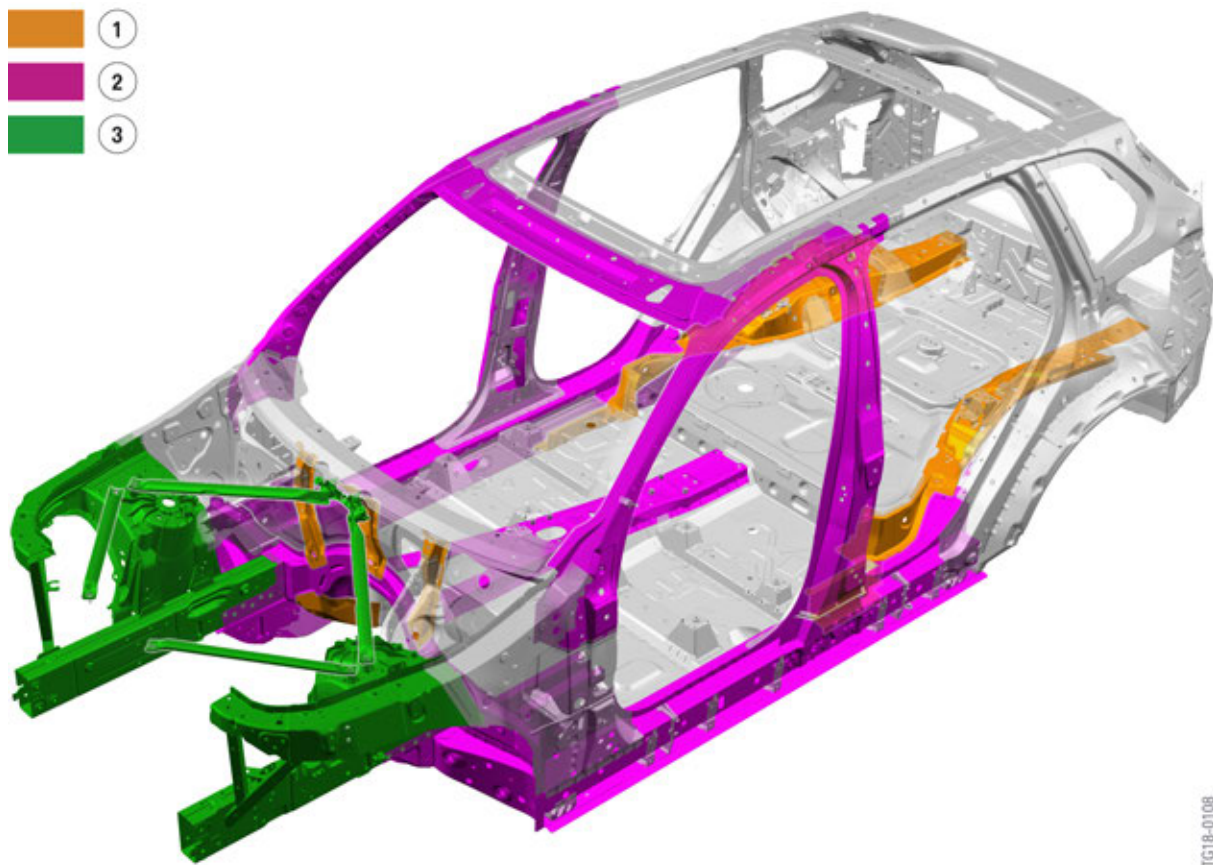
# G05 Body

## 3. Bodyshell

### 3.1. Body structure

The lightweight body concept of the G05 consists of high-strength and hot-formed steel and aluminum components, where the proportion of diecast aluminum and extruded components has increased significantly. Compared with the F15, the engine supports, front side panel carrier supports and various bolted struts are now also made of aluminum. Thanks to the material mix, the materials are able to contribute their specific strengths to the vehicle in the best possible way. As a result of the strict lightweight construction philosophy, the weight of the body has been reduced by around 15.5 kg compared with the predecessor F15, but crash safety has been further improved and comfort enhanced.

#### 3.1.1. Material overview



G05 material overview in the body structure

Index	Explanation
1	Multiphase steel (> 300 N/mm <sup>2</sup> )
2	Ultra-high-strength steel (> 900 N/mm <sup>2</sup> )
3	Aluminum

# G05 Body

## 4. Body Repair Level 1

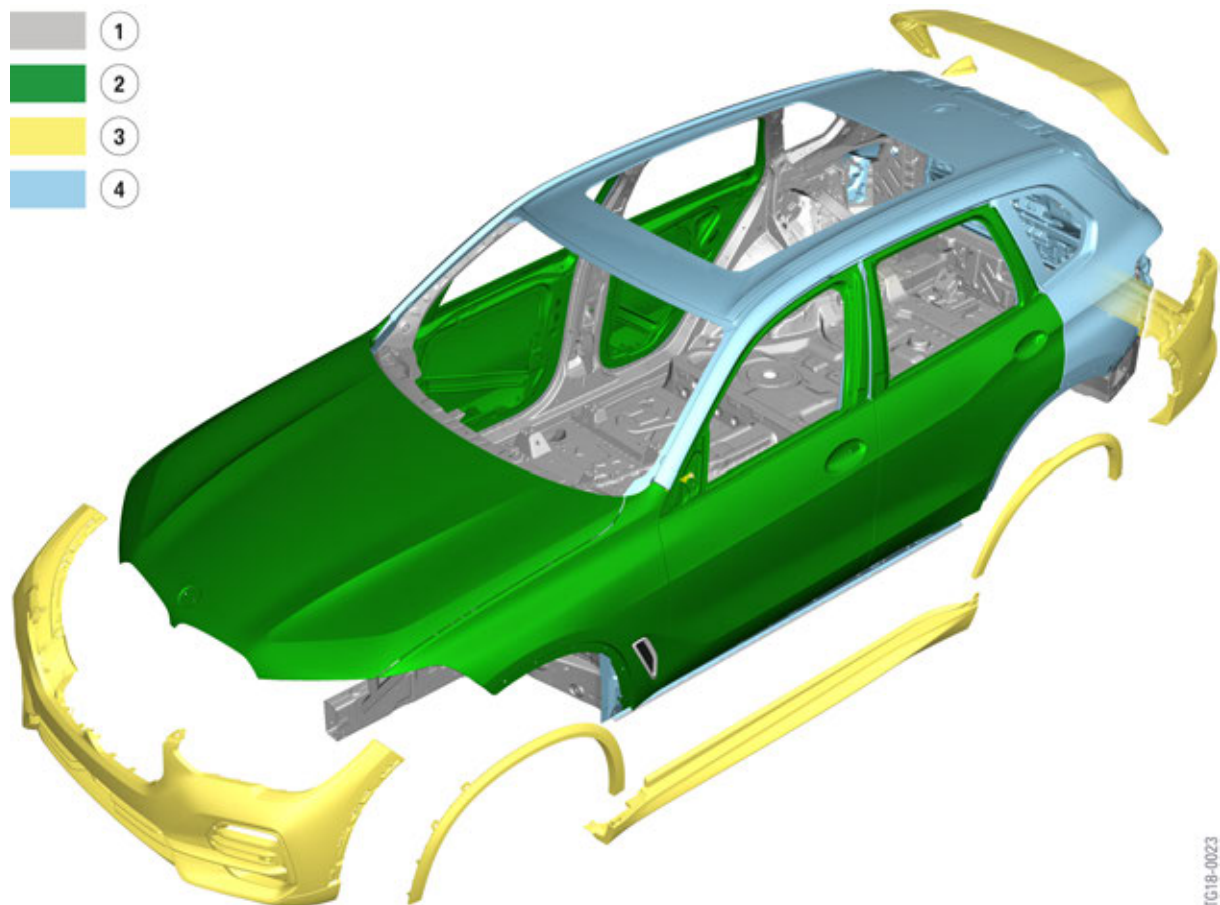
### 4.1. Repair Level 1

Taking into account the repair stages of the BMW workshop information system, the body repair work in the Technical Training is divided into 3 repair levels. Each of the 3 Body Repair Levels includes certain prerequisites in terms of the qualifications of the employees and the workshop equipment.

The special characteristics of the add-on body parts and the materials used in the outer body skin are described in this chapter. However, the basic functions of the roof and the outer body skin components made of plastic are the same as on other current BMW models. For this reason, these components will not be described in detail here.

Information on the basic procedure for adjustment work on add-on body parts can be found in the Product Information "**Body Repair Level 1**" of the standard body training "Body Repair Level 1" as well as in the ISTA workshop information system.

### 4.2. Outer body skin materials



G05 outer body skin materials

TC18-0023



# G05 Body

## 4. Body Repair Level 1

Index	Explanation
1	Other steel grades
2	Aluminum
3	Plastic (PP + EPDM)
4	Deep-drawing steel

As with the predecessor F15 the bonnet is made of aluminum. The front side panels and all 4 doors are also made of aluminum. This increase in aluminum components leads to a significant reduction in weight. The roof and the entire outer side frame are made of deep-drawing steel.

The front and rear bumper panels as well as the wheel arch and side sill trim panels are made of plastic (PP + EPDM) as before. However, further development of this material made it possible to reduce the density and thus the weight.

### 4.3. Upper section of tailgate

The tailgate of the G05 is made of two parts, similar to the F15. The basic equipment already features electric spindle drives on the left and right for the tailgate upper section. The tailgate lock and the drive for Automatic Soft Close are fitted in the tailgate lower section.



G05 upper section of tailgate

# G05 Body

## 4. Body Repair Level 1

Index	Explanation
1	Spindle drive, left/right
2	Tailgate button
3	Tailgate lock
4	Automatic Soft Close drive

### 4.4. Lower section of tailgate

In combination with the optional equipment Comfort Access on the X5 xDrive 40i (SA 322) the tailgate lower section now also opens and closes automatically on the G05. A spindle drive integrated in the tailgate moves the tailgate lower section via a kinematic deflection mechanism on the bonnet hinge. Here the axial movement of the spindle drive is converted by the kinematic mechanism into a rotational movement of the tailgate, enabling the tailgate to open and close by fully automatic means. Opening and closing of the tailgate sections can be performed as follows:

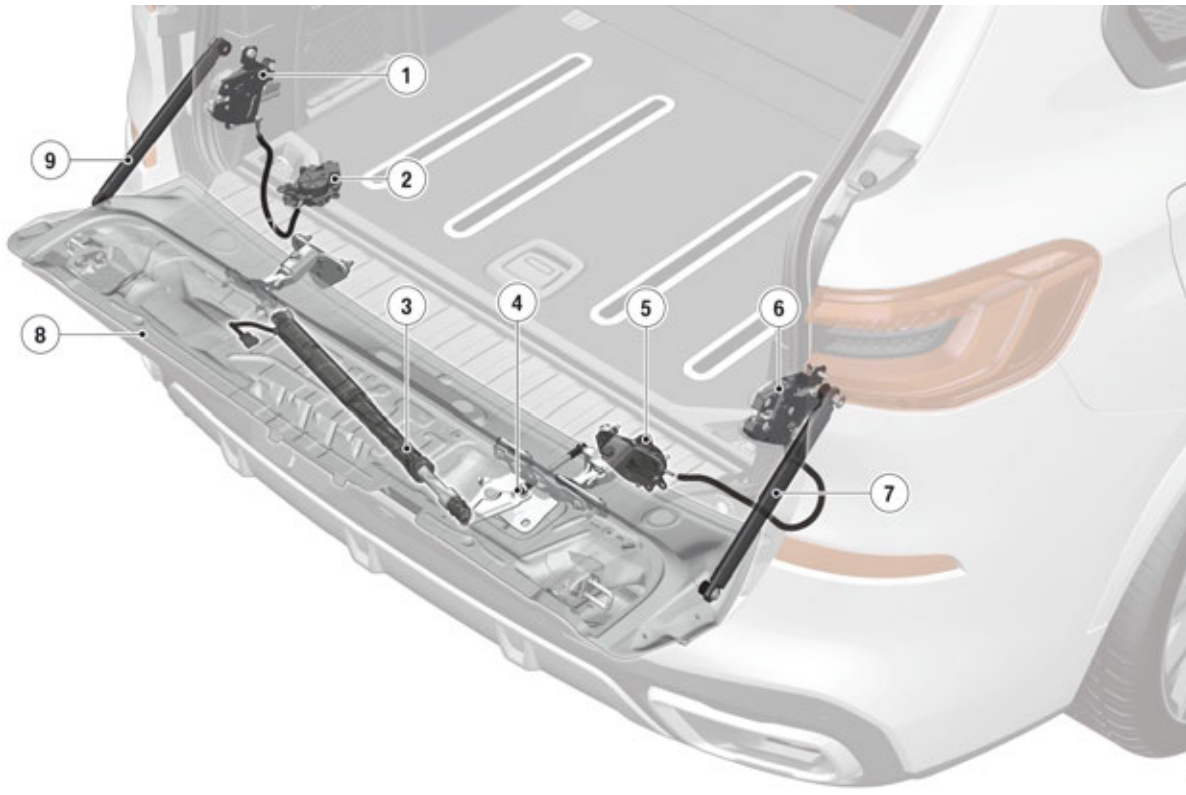
- \*Both tailgate sections can be opened or closed with the button in the driver's door.
- The tailgate upper section can be opened or closed with the button on the ID transmitter.
- The tailgate upper section can be opened with the outside button on the tailgate.
- Both tailgate sections can be contactlessly opened or closed with the corresponding foot movement.
- Both tailgate sections close automatically when the button on the tailgate upper section is pressed.
- When the button on the tailgate lower section is pressed, only the tailgate lower section opens or closes automatically (optional equipment).

\*The driver can also make an adjustment in the CID under Setting Tailgates so that only the tailgate upper section opens or closes with the button in the driver's door trim panel.

If the check symbol for trailer operation is set in the CID, both tailgate sections can only be opened or closed manually with the button on the tailgate sections.

# G05 Body

## 4. Body Repair Level 1



G05 tailgate lower section

Index	Explanation
1	Tailgate lock, left, for tailgate lower section
2	Automatic Soft Close drive, left
3	Spindle drive, tailgate lower section
4	Kinematic deflection mechanism
5	Automatic Soft Close drive, right
6	Tailgate lock, right, for tailgate lower section
7	Gas pressure spring, right
8	Tailgate lower section
9	Gas pressure spring, left

In contrast to the F15, where the locks of the tailgate lower section were installed in the tailgate, on the G05 the tailgate locks and the associated Soft Close drive are installed in the body side frame. This concept reduces the total weight of the tailgate. An emergency release facility is available if the tailgate locks malfunction. The relevant tailgate lock can be released by inserting and turning a hexagon socket wrench in the direction of the arrow. Failure to observe the correct direction of turning may result in damage to the tailgate lock.



# G05 Body

## 4. Body Repair Level 1

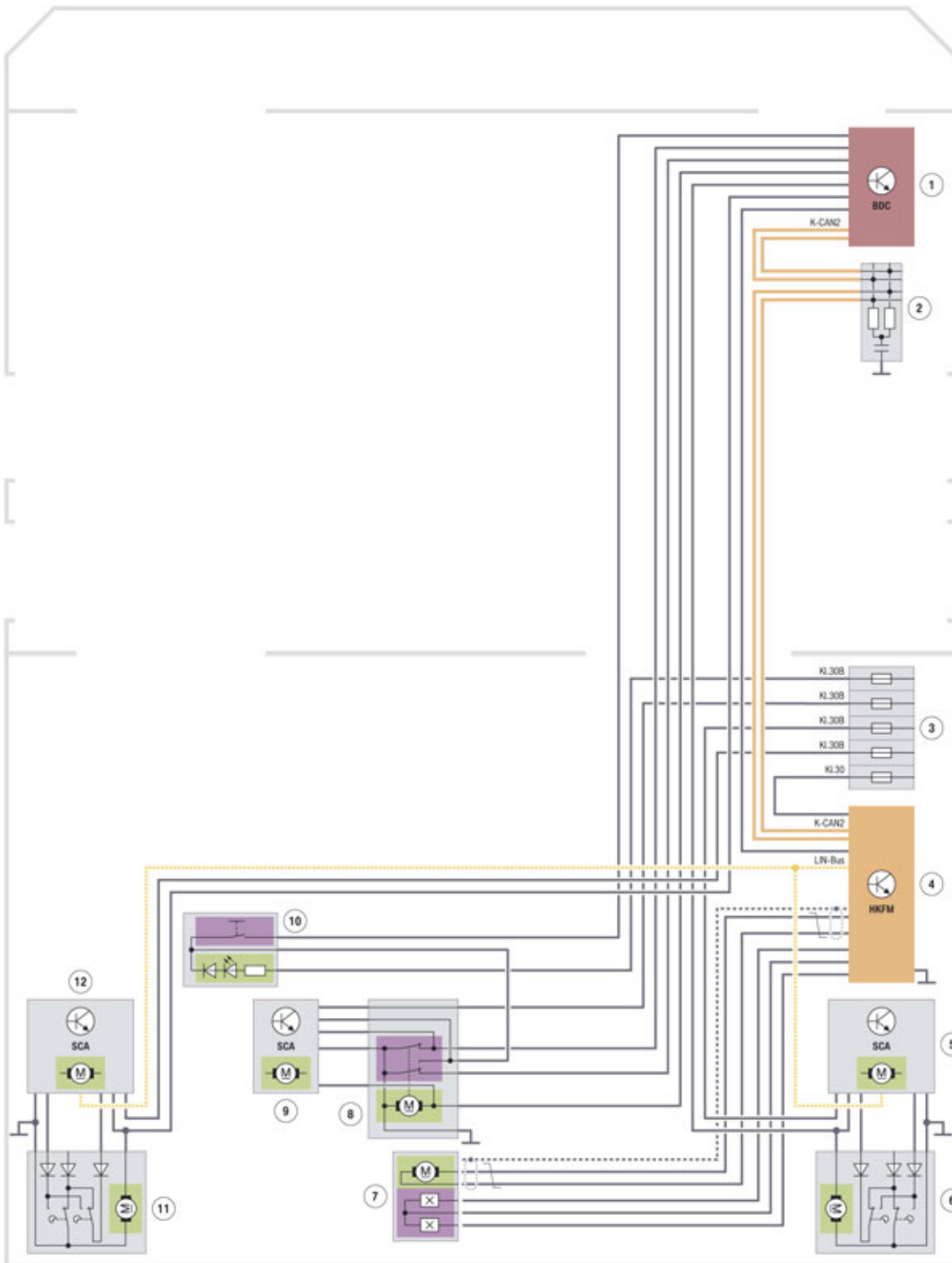


G05 emergency release of lower section of tailgate

You can see the electric tailgate lower section in the following wiring diagram.

# G05 Body

## 4. Body Repair Level 1



TC18-0099

G05 wiring diagram for electric lower section of tailgate

# G05 Body

## 4. Body Repair Level 1

Index	Explanation
1	Body Domain Controller (BDC)
2	CAN terminator
3	Power distribution box, rear right
4	Tailgate function module
5	Automatic Soft Close drive, right
6	Tailgate lock, right
7	Spindle drive for tailgate lower section
8	Lock for tailgate upper section
9	Automatic Soft Close drive, tailgate upper section
10	Button for tailgate lower section
11	Tailgate lock, left
12	Automatic Soft Close drive, left

# G05 Body

## 5. Heating/Air Conditioning Systems

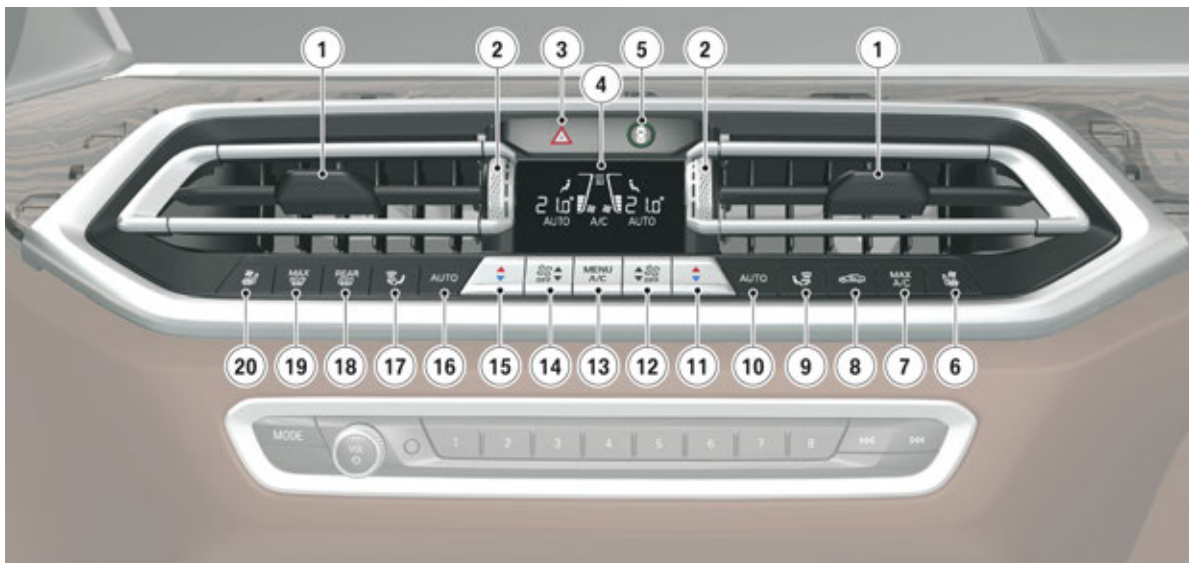
Two versions of the integrated automatic heating/air conditioning system (IHKA) are available for the G05. The IHKA regulated on the air side is based in part on the G12 and G01. Topics in the table above are described in the product information G12 Air Conditioning.

- 3/2-zone IHKA (standard equipment on the xDrive 40i)
- 4/3-zone IHKA (optional on the xDrive 40i standard on the xDrive 50i )(SA 4NB)

From a technical perspective the climate control is divided into zones (e.g. driver, front passenger, rear passenger compartment, temperature). The first digit represents the individually adjustable temperature settings, whilst the second digit represents the zones in which the amount of air can be individually adjusted. With the G05 the IHKA display is installed for the first time between the center ventilation outlets.

### 5.1. 3/2-zone IHKA

A 3/2-zone IHKA is already installed as basic equipment in the G05. Three different temperature zones can be set by the driver/front passenger and in the rear passenger compartment. The amount of air can only be regulated by the driver and front passenger. Automatic recirculated air flap control, the SYNC function, stratification, etc. can be adjusted in the A/C menu via the CID. In the event of strong sunlight, the solar sensor on the windscreen regulates the air conditioning with temperature, amount of air and air distribution in such a way that the set temperature is maintained in the vehicle interior.



IHKA control panel for driver/front passenger

Index	Explanation
1	Lever for changing the airflow direction
2	Knurled wheel for steplessly opening and closing the ventilation outlets
3	Hazard warning switch
4	Display
5	Intelligent Safety button

# G05 Body

## 5. Heating/Air Conditioning Systems

Index	Explanation
6	Active seat ventilation/seat heating, right
7	Max. cooling on/off
8	Air recirculation function on/off
9	Manual air distribution regulation, right
10	Automatic program, right
11	Temperature adjustment, right
12	Decrease/increase amount of air, right
13	Call up A/C menu
14	Decrease/increase amount of air, left
15	Temperature adjustment, left
16	Automatic program, left
17	Manual air distribution regulation, left
18	Rear window heating on/off
19	Windscreen defrosting/defogging
20	Active seat ventilation/seat heating, left

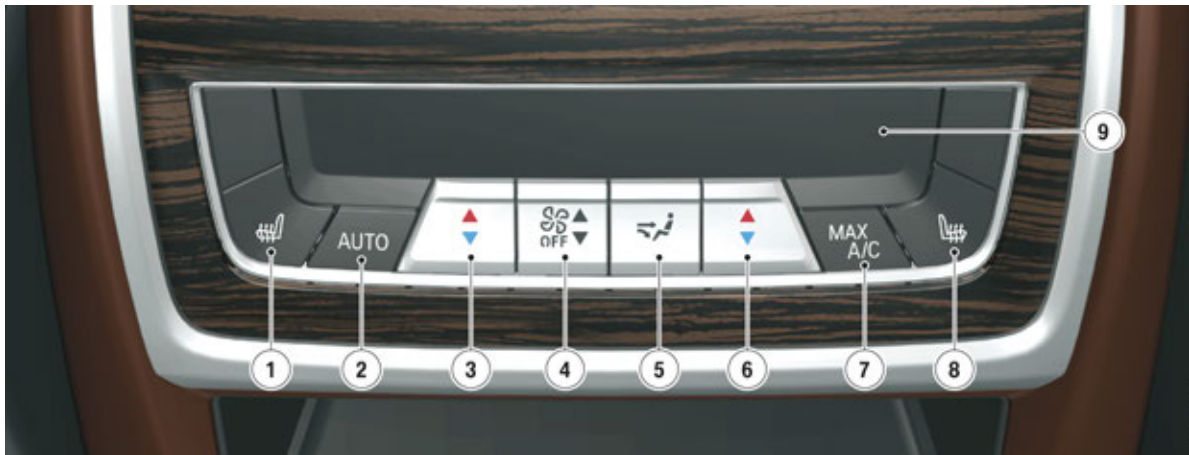
With the 3/2-zone IHKA, the temperature in the rear passenger compartment is controlled via stratification. The amount of air for the rear passenger compartment is supplied via the blower installed in the passenger footwell, and this can only be adjusted by the driver or front passenger.

# G05 Body

## 5. Heating/Air Conditioning Systems

### 5.2. 4/3-zone IHKA

With optional equipment (SA 4NB) a 4/3 zone IHKA is installed in the G05 which does not differ visually from the driver/front passenger control panel. For the rear passenger compartment an additional blower is installed under the driver/front passenger center armrest. Two temperature zones and the amount of air can be adjusted via a separate control panel in the rear passenger compartment. Individual air distribution and an automatic program are additionally available for the rear passenger compartment.



4/3-zone IHKA control panel, rear passenger compartment

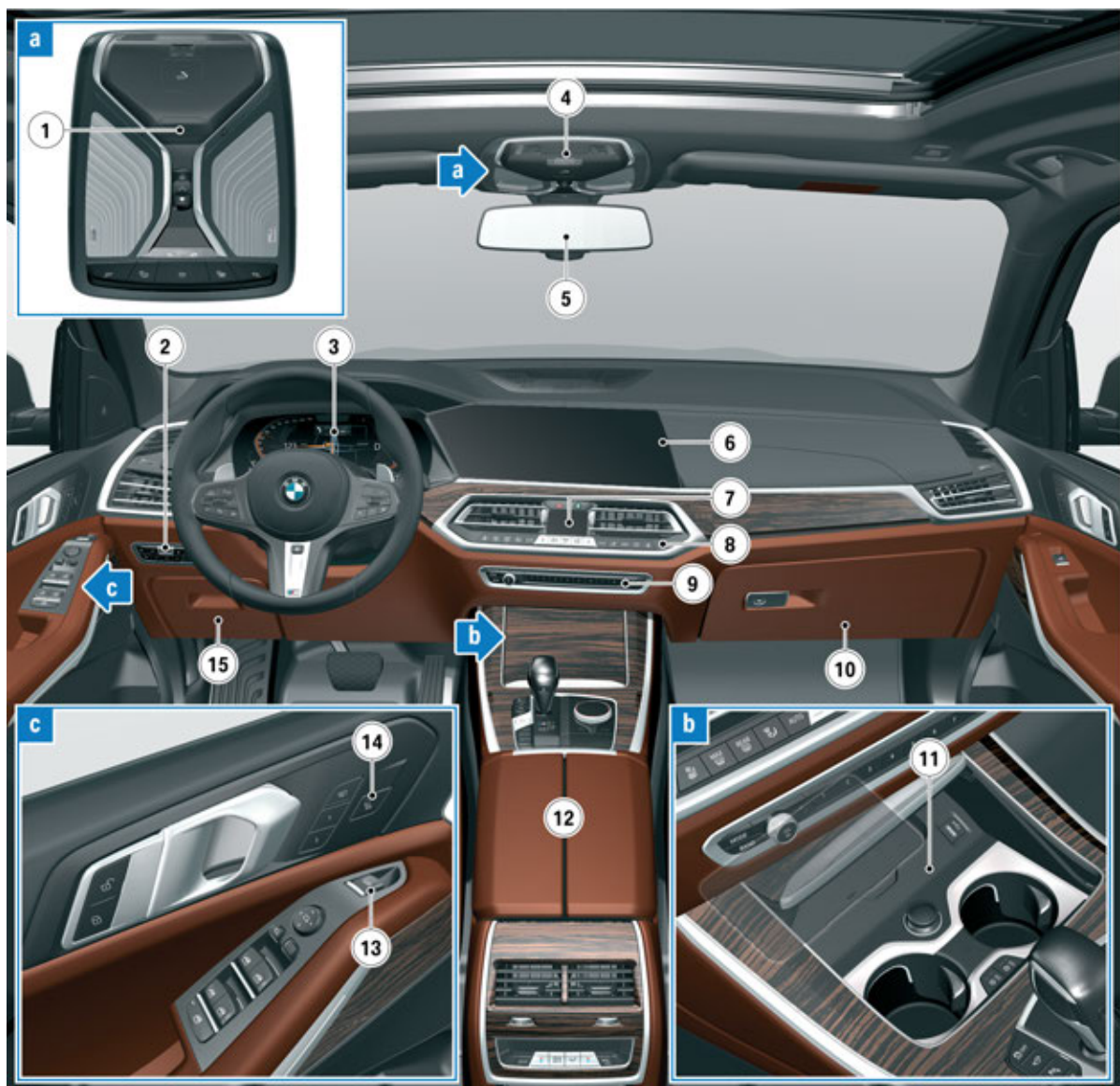
Index	Explanation
1	Seat heating, left
2	Automatic program
3	Temperature adjustment, left
4	Decrease/increase amount of air
5	Manual air distribution regulation
6	Temperature adjustment, right
7	Max. cooling on/off
8	Seat heating, right
9	Display

# G05 Body

## 6. Interior Equipment

### 6.1. Overview

The vehicle interior shows significant further developments in comparison to the F15. The spatial impression and all-round visibility have been improved. This is further supported by the very flat design of the roof function center. In addition, the headliner, which is equipped with sound insulation, helps to make it noticeably easier for passengers to converse with each other between the first and second rows of seats. The new X5 features many design changes: starting with the Central Information Display (CID), which is angled slightly towards the instrument cluster; also the integrated A/C control panel with display between the center ventilation outlets. The door opener has also been adapted to the modern vehicle interior. With the optional equipment heat comfort package (SA 4HB) the front seats, armrests in the door trim panels and on the center console and steering wheel are heated.



G05 front overview



# G05 Body

## 6. Interior Equipment

Index	Explanation
a	Roof operating unit
b	Center console storage compartment, front
c	Overview, door trim panel, driver's side
1	Gesture recognition camera
2	Light operating unit
3	Instrument cluster
4	Roof function center
5	Frameless mirror
6	Central Information Display (CID)
7	Heating and air conditioning system display
8	Heating and air conditioning controls
9	Audio control panel
10	Glove box
11	Wireless charging station and thermoelectric cup holder
12	Center armrest
13	Tailgate button
14	Gentleman function, front passenger seat
15	Glove box, driver's side

### 6.2. Lines

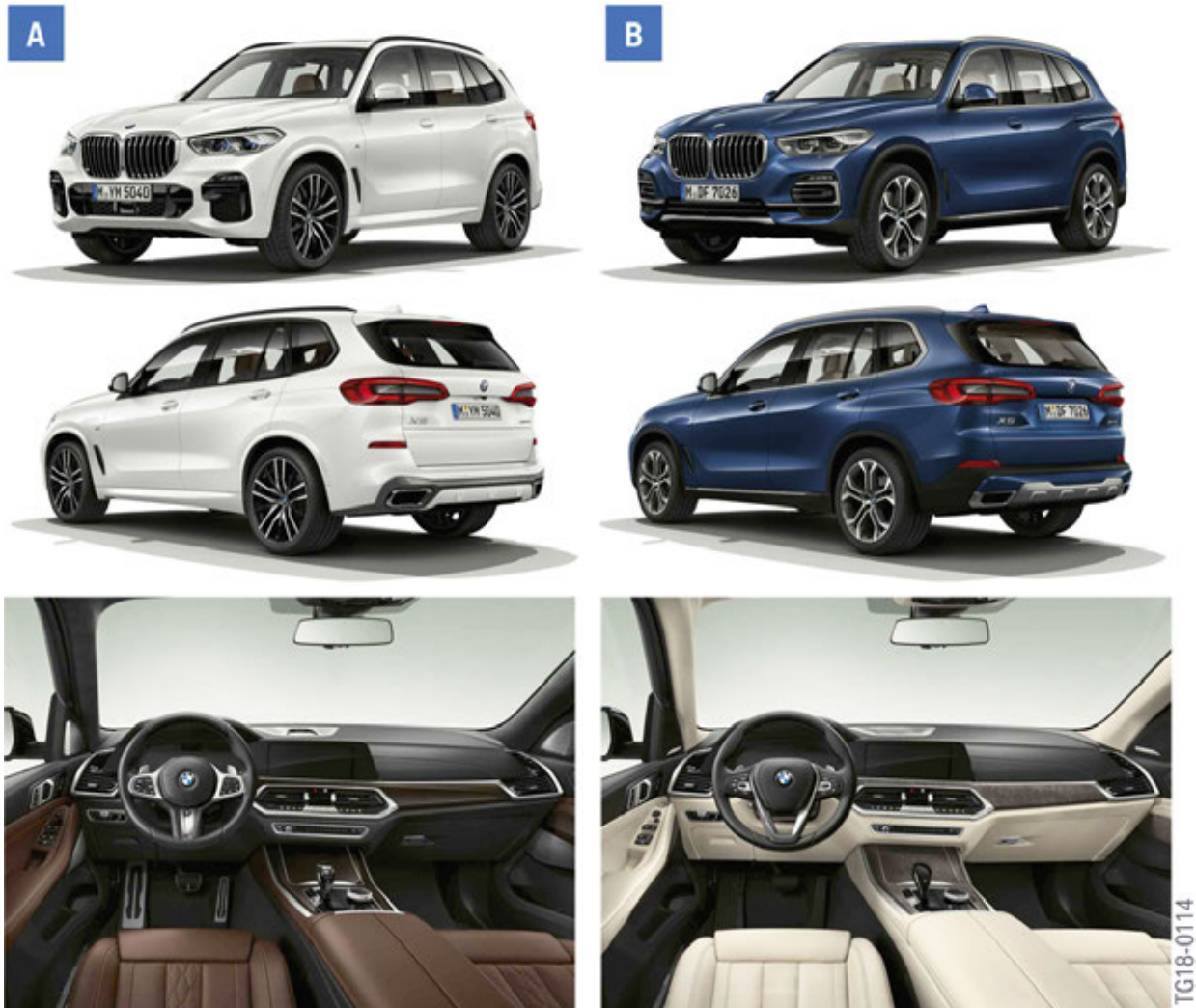
In addition to the comprehensive offering of optional equipment, the G05 can also be individualized with the following equipment packages. The equipment packages contain both general optional equipment and line-specific features. The content of the equipment packages is partly binding and cannot be changed.

The new BMW X5 can be ordered with X Line or with the BMW M Sport package.



# G05 Body

## 6. Interior Equipment



G05 lines

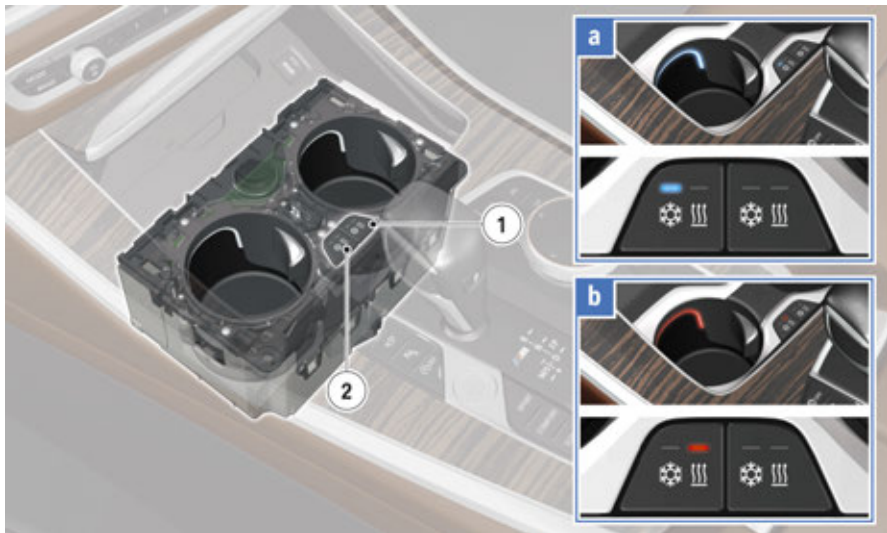
Index	Explanation
A	BMW M Sport package
B	X Line

### 6.3. Thermoelectric cup holder

With the optional equipment SA 442 a thermoelectric cup holder is used for the first time in a BMW in the G05. This is fitted as usual in front of the selector lever in the center console. The two cup holders can be operated separately and differently. Depending on the setting, the color of the light changes from blue when cooling to red when heating. A temperature range of approx. 3 °C to 55 °C (37 °F to 131 °F) is achieved by means of a Peltier element. Drinks cannot be actively cooled down or heated up. The function is solely for keeping drinks cold or hot for an extended period.

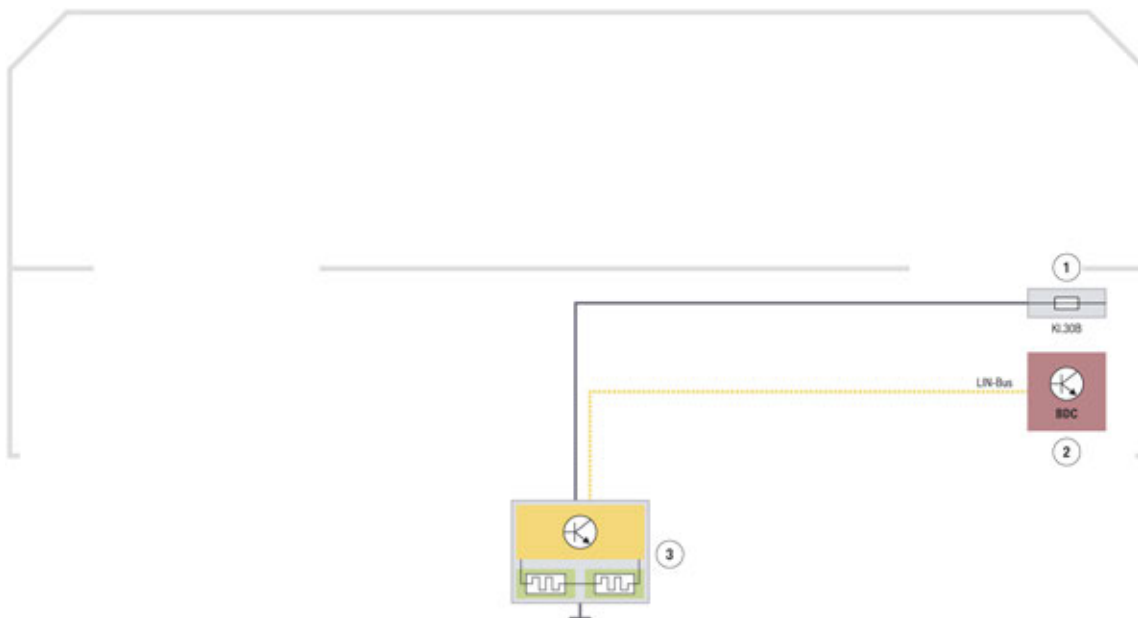
# G05 Body

## 6. Interior Equipment



G05 thermoelectric cup holder

Index	Explanation
a	Switched on to cool drinks
b	Switched on to heat drinks
1	Switch for front passenger
2	Switch for driver



G05 wiring diagram for thermoelectric cup holder

# G05 Body

## 6. Interior Equipment

Index	Explanation
1	Fuse in power distribution box, front right
2	Body Domain Controller (BDC)
3	Thermoelectric cup holder

### 6.4. Seats

#### 6.4.1. Front seats

As a design element, the seats are an important element of a sporty-luxurious vehicle interior. The seats provided as standard offer the customer maximum comfort and safety. Special stitching accents are provided in the form of decorative stitches for the Venasca leather trim and backstitching for the Merino leather trim. All seat adjustments are fully electric. The customer can choose seat heating and climate control, backrest width adjustment as well as lumbar support and massage as optional equipment. Until now the customer could choose between a basic seat, a sports seat and a multifunction seat. In the G05 the sports seat is already installed as the basic seat, version 1 is thus discontinued.

With the Multi-contour seats optional on the xDrive 40i (SA 456) and standard on the xDrive 50i an additional button (gentleman function) is installed in the door trim panel on the driver's side. (See Overview picture in the section 6.1 Interior equipment no. 14). When this button is pressed by the driver, seat adjustment switches from the driver's side to the passenger's side. This is indicated by a green LED lighting up on the button. As long as the LED is lit the driver can use the adjustment switches on the driver's seat to make the same adjustments for the front passenger seat as for the driver's seat.



G05 seat versions

TG18-0115

# G05 Body

## 6. Interior Equipment

Index	Explanation
1	Basic seat no longer available
2	Sports seat (the standard seat in the xDrive 40i)
3	Multi-contour seat (the standard seat in the xDrive 50i and optional in the xDrive 40i)

The multi-contour seat offers the customer maximum comfort. The customer experiences the greatest degree of comfort as soon as they get into the vehicle and can travel relaxed even on long trips. A massage system in the seat cushion and backrest surfaces can also be ordered for the multi-contour seat. All possible seat adjustments are fully electric. On the multifunction seat, 5 touch-sensitive sensors are integrated in the switches for fore-and-aft seat adjustment. As a result, when the adjustment switch is touched a pop-up is opened in the Central Information Display (CID), which shows the function and adjustment range of the switch that has been touched. Further information on this topic can be found in the Product Information G12 Complete Vehicle.

Function	Sports seat	Multi-contour seat
Seat memory	Standard	Standard
Heated seats	Standard	Standard
Lumbar support	Standard	Standard
Active seat ventilation	OE 453	SA 453
Massage function	OE 4T7	SA 4T7

### 6.4.2. Second row of seats

The decorative stitches, backstitching and contrast colors already familiar from the first row of seats are also carried over into the second row of seats, where they help create a harmonious overall impression. Functionality is underlined thanks to the easily accessible ISOFIX attachments and the cup holders in the center armrest. The usual 40: 20: 40 folding backrest from the established SA 465 is of tremendous benefit to the customer. This is unlocked in the basic equipment via a cable from the luggage compartment or on the backrest.

Customers can also select seat heating for the front and rear passenger seats as optional equipment SA 4HA.

# G05 Body

## 6. Interior Equipment



G05 rear seats

Index	Explanation
1	Cup holder
2	Release to tilt the head restraint
3	Release to tilt/fold the backrest
4	Button for electric comfort entry (optional equipment with 3rd row seat)
5	ISOFIX
6	Button for electric seat adjustment (optional equipment with 3rd row seat)

### 6.4.3. Second row of seats, electric

In conjunction with the 3rd row of seats the backrest on the 2nd row of seats is adjusted, folded down and positioned upright by fully electric means via two electric motors which are installed in the backrest. These functions are not available when the lock button for the power windows is activated in the driver's door trim panel. Comfort entry for the 3rd row of seats is also provided by fully electric means via two electric motors in each case which are installed in the seat cushion surface. Electric comfort entry has an anti-trap function which is provided by evaluating the power consumption of the electric motors. In addition, electric forward/back adjustment of the individual seats with two electric motors by 80 mm provides increased comfort or a larger load space in the luggage compartment. These functions are controlled separately by two control units on the left and right. If seats are replaced in a vehicle, they must be retightened with the ISTA diagnosis system.

# G05 Body

## 6. Interior Equipment

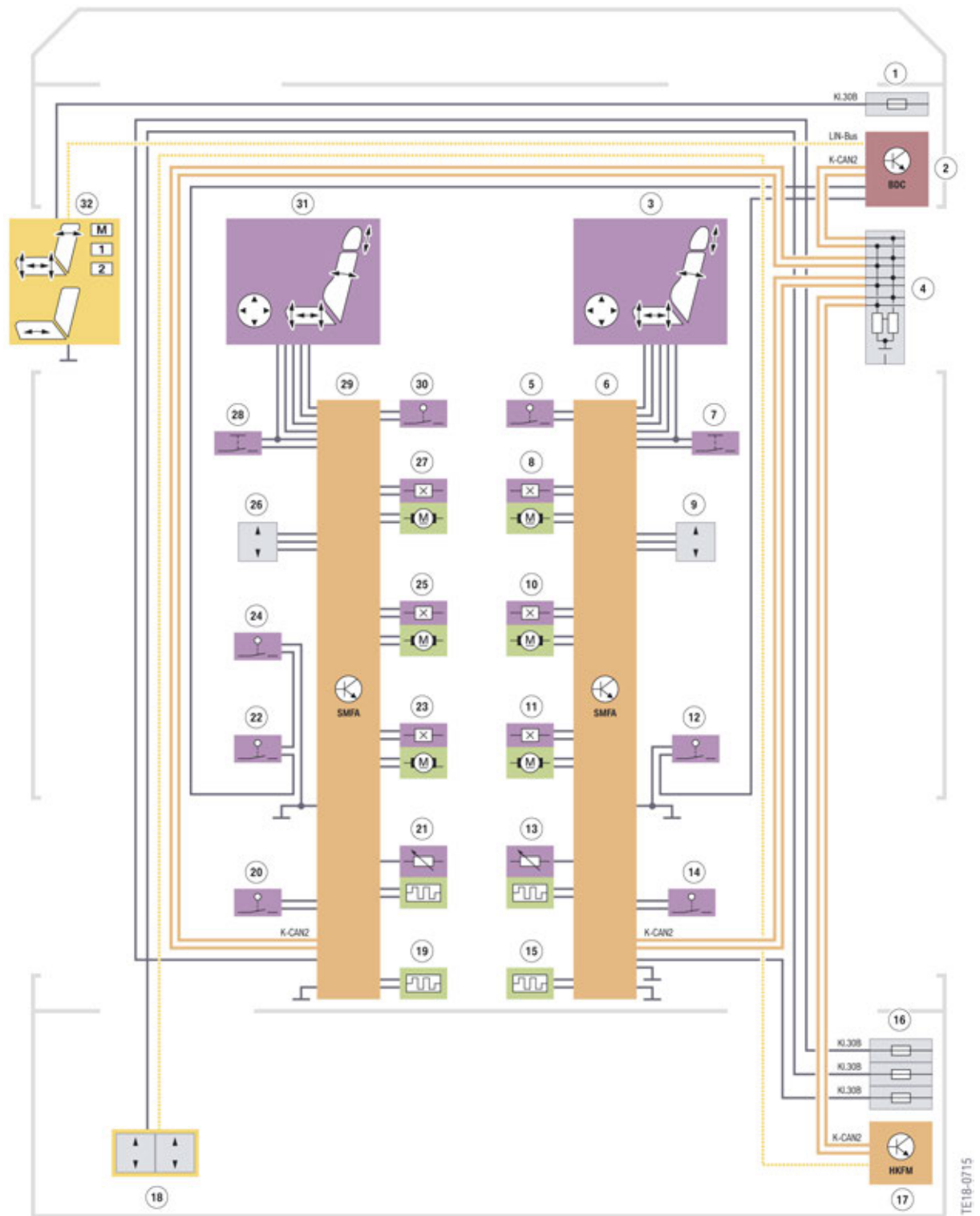


Second row of seats, electric

Index	Explanation
1	Electric motors for adjusting, folding down and setting upright the backrest
2	Electric motors for forward/back adjustment
3	Electric motors for comfort entry



## 6. Interior Equipment



Wiring diagram, second row of seats, electric

# G05 Body

## 6. Interior Equipment

Index	Explanation
1	Fuse, front right
2	Body Domain Controller
3	Seat adjustment switch, rear right
4	CAN terminator
5	Switch for through-loading facility, right
6	Seat module, rear right
7	Switch for seat folding function, right
8	Backrest angle adjustment motor, right
9	Comfort entry switch, right
10	Motor for forward/back seat adjustment, right
11	Comfort entry switch, right
12	Microswitch, end position, comfort entry, right
13	Seat heating pad, seat surface, passenger's side rear
14	Switch for backrest emergency release, right
15	Seat heating pad, backrest, passenger's side rear
16	Fuse, rear right
17	Rear function module
18	Switch for forward/back seat adjustment in the luggage compartment
19	Seat heating pad, backrest, driver's side rear
20	Switch for backrest emergency release, left
21	Seat heating pad, seat surface, driver's side rear
22	Microswitch, end position, comfort entry
23	Motor for comfort entry, left
24	Microswitch, end position, comfort entry
25	Motor for forward/back seat adjustment, left
26	Comfort entry switch, left
27	Backrest angle adjustment motor, left
28	Seat folding switch, left
29	Seat module, rear left
30	Switch for through-loading facility, left
31	Seat adjustment switch, rear left
32	Memory switch



# G05 Body

## 6. Interior Equipment

### 6.4.4. Third row of seats

The 3rd row of seats + 2-axle air suspension (SA 4UB) is integrated in the luggage compartment and cannot be retrofitted. Where necessary, the seats can as on the F15 be individually folded down in line with the luggage compartment floor to create a flat large compartment surface. The seats are unlocked and folded by completely mechanical means. Two cup holders are installed in the center console between the seat cushion surfaces.



G05 third row of seats

Index	Explanation
a	3rd row seats in upright position
b	Seat folded down level with the luggage compartment floor

Armrests are integrated in the side trim panels in the luggage compartment. Separate heating and ventilation for the 3rd row of seats can be switched off and on via a button in the center console. An electric auxiliary heater (PTC) is controlled via a knurled wheel. Active cooling via the air conditioning system is not possible.

# G05 Body

## 6. Interior Equipment



G05 auxiliary heating, 3rd row of seats

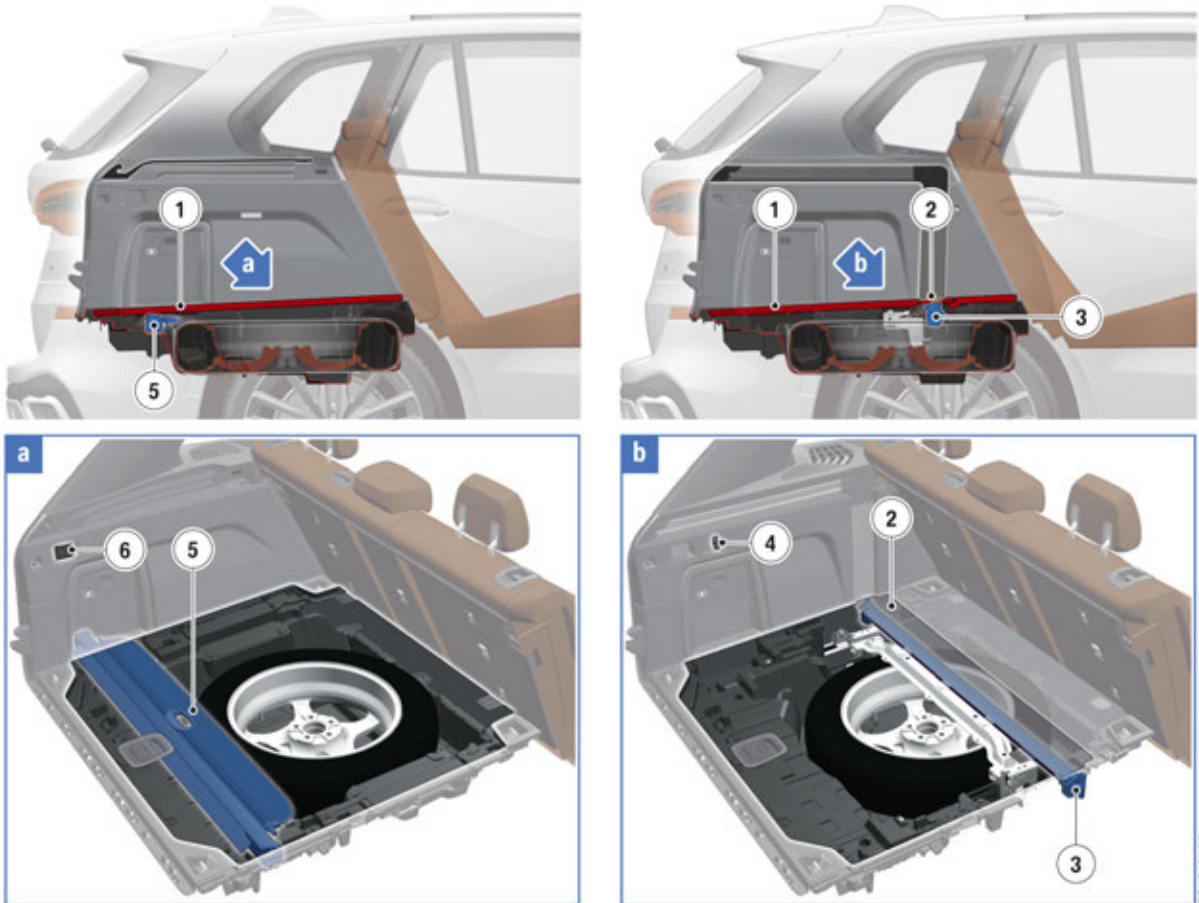
Index	Explanation
1	Button for switching the blower on and off
2	Knurled wheel for cold/hot adjustment

# G05 Body

## 7. Luggage Compartment

### 7.1. Luggage compartment capacity

The luggage compartment capacity of the new BMW X5 has not changed compared with its predecessor F15 and remains at 650 liters. In the basic version the G05 has a manual roller cover for the luggage compartment which has a separate stowage space under the luggage compartment floor. With the optional equipment luggage compartment package (SA 418) – not possible in conjunction with the 3rd row of seats, an electric roller cover for the luggage compartment is installed. When the tailgate is opened, this roller cover automatically travels completely up to the backrest of the 2nd row of seats. When the tailgate is closed, the roller cover also closes automatically. The roller cover can also be opened or closed manually by means of two buttons installed in the luggage compartment trim panel. If the complete luggage compartment capacity of the G05 with folded-down rear seats is required, the roller cover can be electrically retracted under the luggage compartment floor by pressing the button in the luggage compartment trim panel. The panel in the luggage compartment floor opens and closes automatically with the aid of a separate electric motor. The optional equipment space saver spare (SA 300) can be ordered for both equipment specifications (basic roller cover for luggage compartment and electric roller cover for luggage compartment).



G05 luggage compartment

TG18-0196

# G05 Body

## 7. Luggage Compartment

Index	Explanation
1	Luggage compartment floor
2	Luggage compartment removable panel, electric roller cover for luggage compartment
3	Electric roller cover for luggage compartment
4	Button for electric roller cover for luggage compartment
5	Basic roller cover for luggage compartment
6	Lever for unlocking backrest of 2nd row of seats

### 7.1.1. Electric roller cover for luggage compartment

The electric roller cover for the luggage compartment has a technical design similar to a panorama roof. The roller cover is retracted and opened or closed via two drive cables by an electric motor installed under the luggage compartment floor. During opening and closing the roller cover is rolled via the drive cables. During retraction under the luggage compartment floor the entire roller cover unit is retracted via the same drive cables. The anti-trap facility is provided during retraction by evaluating the drive motor's power consumption.

For the roller cover for the luggage compartment a separate control unit is responsible for the following functions:

- Actuation of the drive motor for the roller cover
- Actuation of the drive motor for the luggage compartment removable panel
- Evaluation of the drive motor's power consumption for the anti-trap facility
- Evaluation of the Hall-effect sensors in the drive motors for position detection

# G05 Body

## 7. Luggage Compartment



BMW G30 switches, luggage compartment trim panel

Index	Explanation
a	Switch unit, luggage compartment trim panel, left
1	Backrest unlocking
2	Button for opening/closing roller cover
3	Button for retracting roller cover under luggage compartment floor

The different positions of the roller cover are illustrated in the graphic below.



G05 sequence of movements of roller cover for luggage compartment

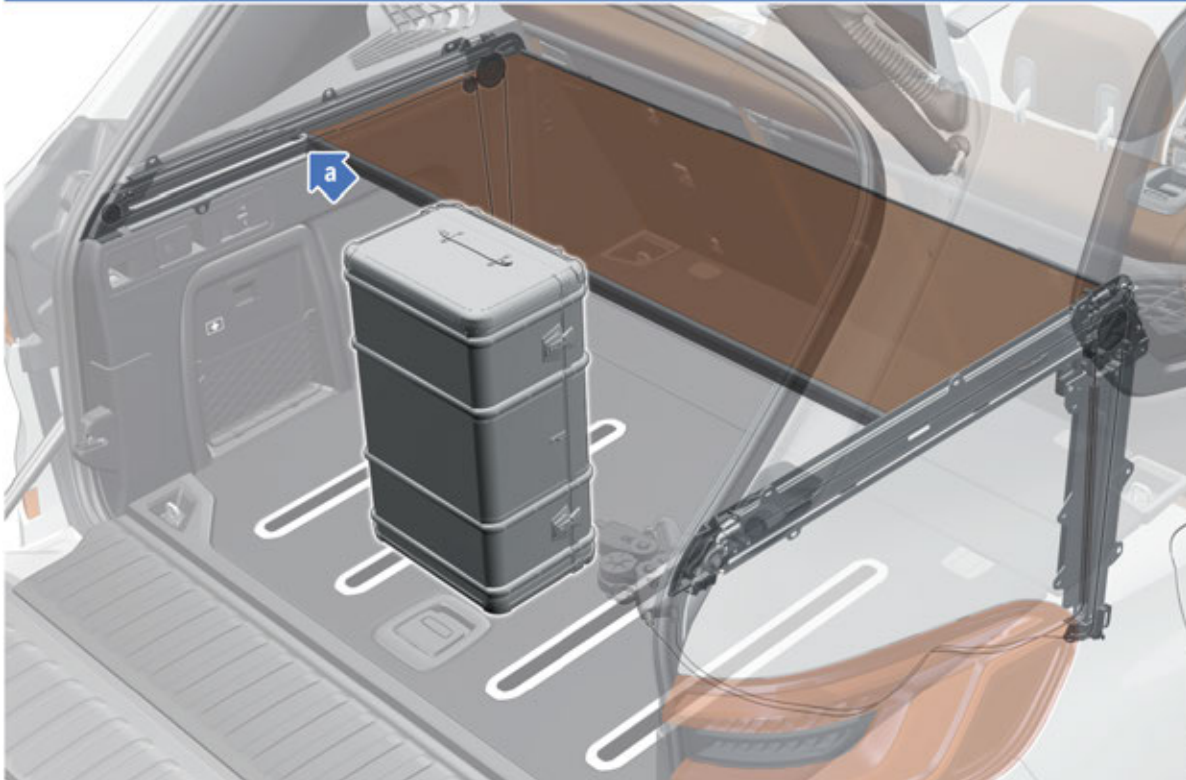
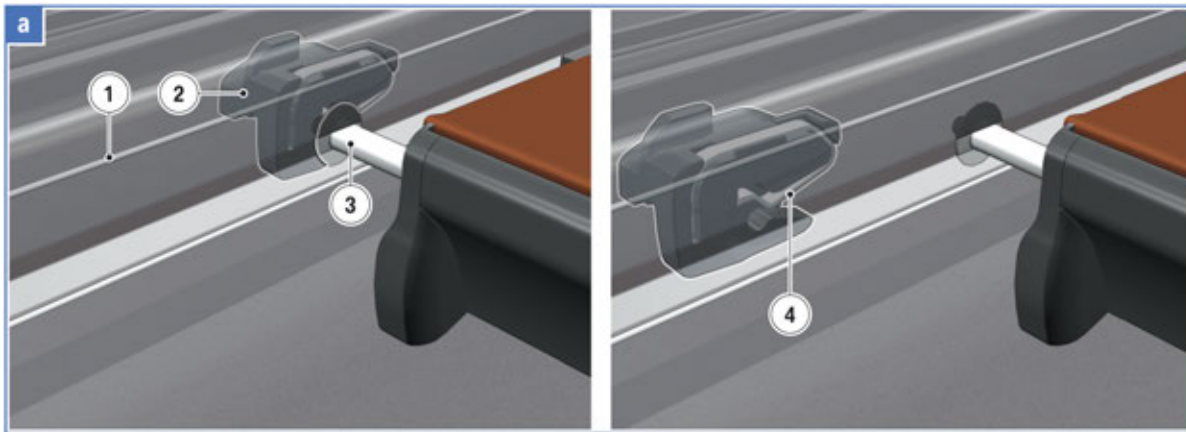


# G05 Body

## 7. Luggage Compartment

Index	Explanation
1	Roller cover closed
2	Roller cover opened
3	Roller cover retracted under luggage compartment floor

When the roller cover is closed, the sliding carriage is moved over the drive cables into the guide rails. If the roller cover hits an obstruction during the closing operation, the roller cover driver is clipped out of the sliding carriage. After triggering, the driver must be clipped by hand into the sliding carriage.



TG18-0198

BMW G05 drive cable plate, roller cover for luggage compartment

# G05 Body

## 7. Luggage Compartment

Index	Explanation
1	Drive cable
2	Sliding carriage
3	Roller cover driver
4	Clamping spring

The electric roller cover for the luggage compartment is shown in the following wiring diagram.

## 7. Luggage Compartment



36



# G05 Body

## 7. Luggage Compartment

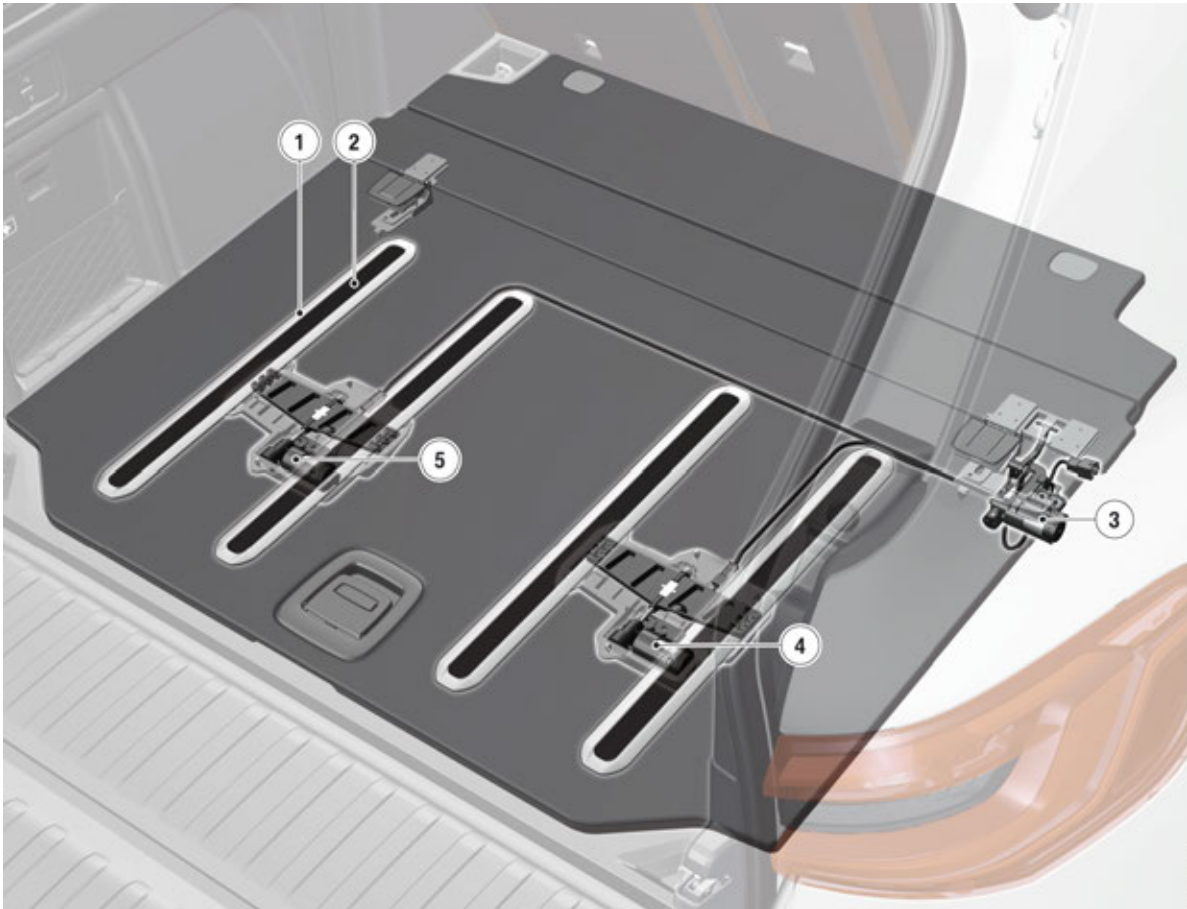
Index	Explanation
1	Body Domain Controller (BDC)
2	CAN terminator
3	Fuses in the power distribution box, rear right
4	Tailgate function module
5	Control unit, roller cover
6	Button for manual roller cover operation
7	Drive motor, luggage compartment removable panel
8	Drive motor, roller cover

### 7.1.2. Luggage compartment floor

With the launch of the G05 the optional equipment luggage compartment package (SA 418) is extended to include an electric roller cover for the luggage compartment and automatic anti-slip rails. 4 aluminum-rubber rails integrated in the luggage compartment floor automatically secure the load in the luggage compartment after the tailgate sections are closed. Two drive motors under the luggage compartment floor automatically extend the rubber rails approximately 3 mm and thereby prevent load items from sliding back and forth in the luggage compartment. The rubber rails retract automatically when the tailgate sections are opened. If the vehicle is parked on a slope with an angle  $>13.5^\circ$ , the rubber rails remain extended even when the tailgate sections are opened. This stops any load items from falling out of the luggage compartment when the tailgate sections are opened.

# G05 Body

## 7. Luggage Compartment

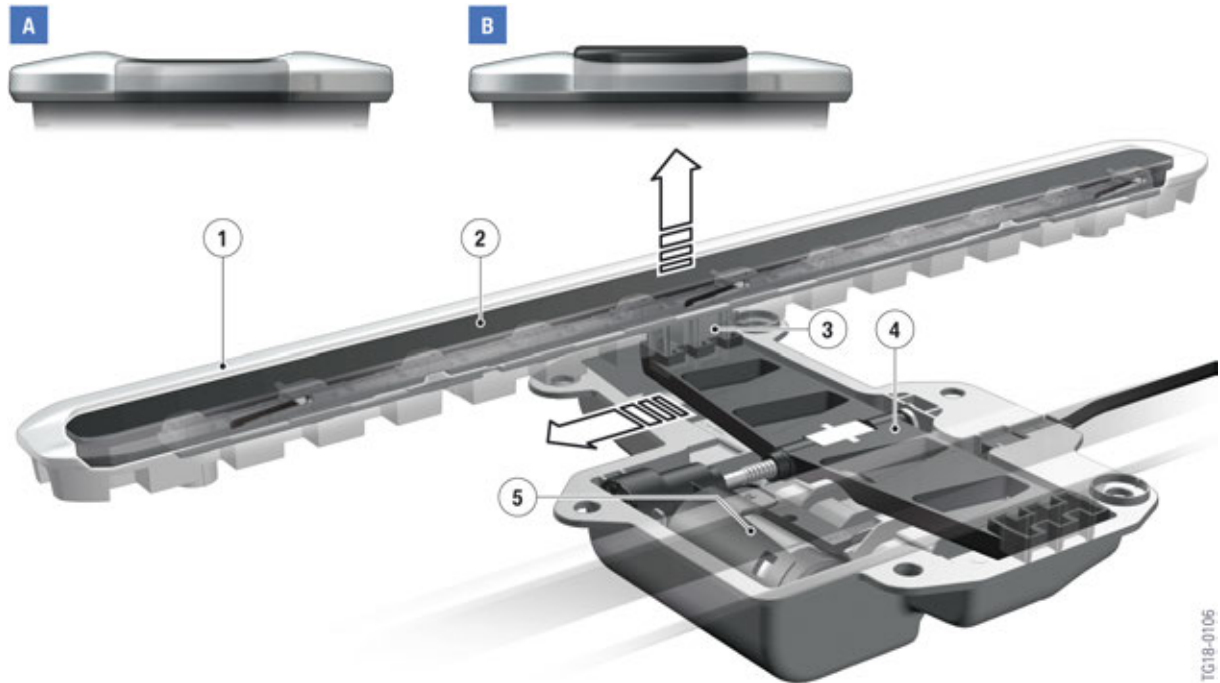


G05 anti-slip rails

Index	Explanation
1	Aluminum frame
2	Anti-slip rail (rubber strip)
3	Drive motor, luggage compartment removable panel, roller cover
4	Drive motor, anti-slip rails, right
5	Drive motor, anti-slip rails, left

# G05 Body

## 7. Luggage Compartment

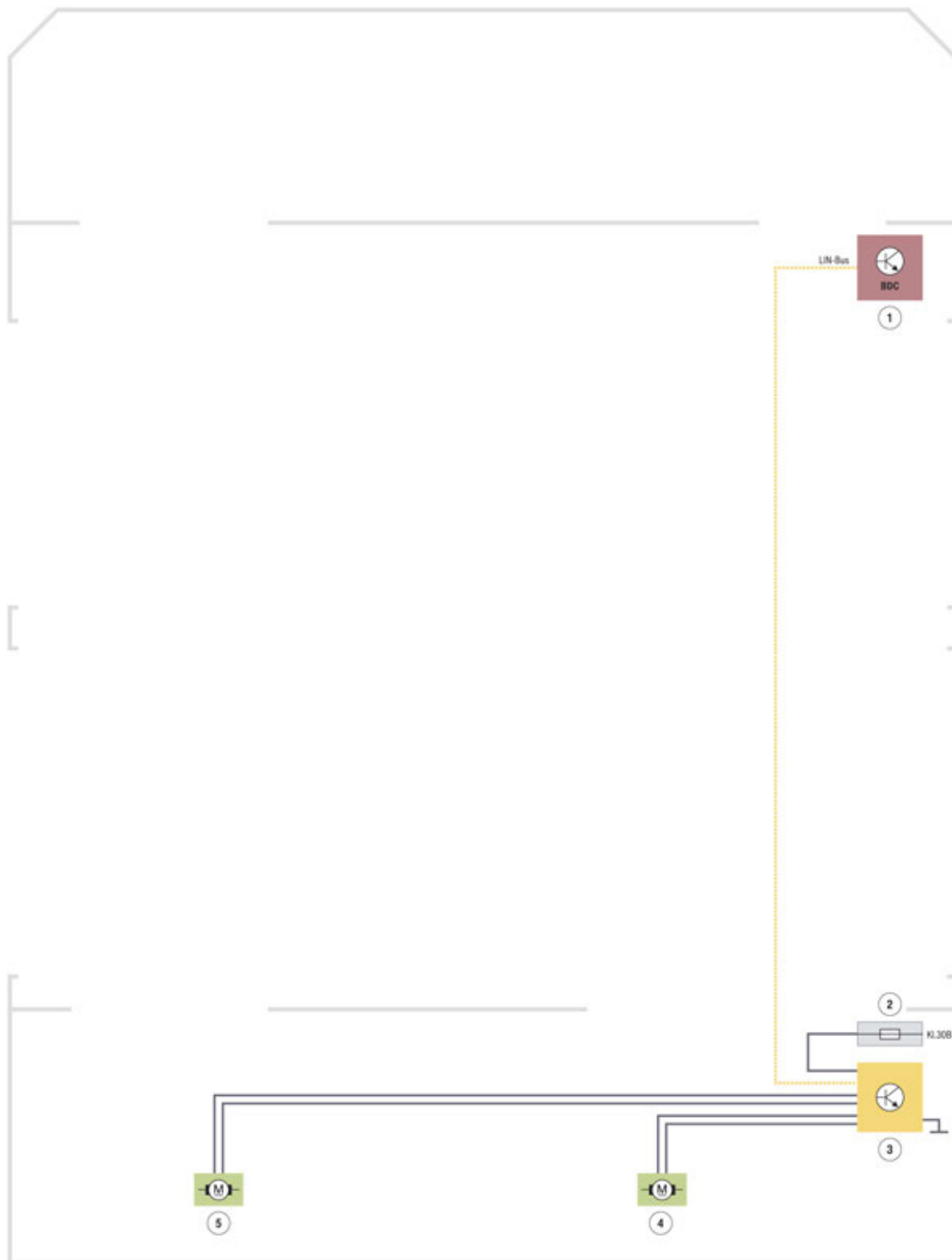


G05 drive, anti-slip rails

Index	Explanation
A	Anti-slip rail retracted
B	Anti-slip rail extended
1	Aluminum frame
2	Anti-slip rail (rubber strip)
3	Driver
4	Sliding carriage
5	Drive motor

# G05 Body

## 7. Luggage Compartment



TC18-0104

G05 wiring diagram, luggage compartment floor

# G05 Body

## 7. Luggage Compartment

Index	Explanation
1	Body Domain Controller (BDC)
2	Fuses in the power distribution box, rear right
3	Control unit for the anti-slip rails
4	Drive motor, anti-slip rail, right
5	Drive motor, anti-slip rail, left

