## Technical training.

**Product information.** 

## **G05 Displays and Controls**



Edited for the U.S. market by:

BMW Group University
Technical Training

#### **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

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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.

#### 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)

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## 1. Operating Elements

#### 1.1. Introduction

#### 1.1.1. New features in the G05

The following table shows the new features of and changes to the display and operating elements in the G05:

Function	New feature/change
Controller	Controller with 8 direct access keys
Central Information Display	12.3" Central Information Display with a Head Unit High 3
User interface	New user interface ID7
Light operating unit	Rotary controller has been replaced by push buttons

## 1. Operating Elements

#### 1.1.2. Overview of the interior

The interior and the operating area (cockpit) of the G05 have been newly designed. Among the new features is the new layout of the air conditioning control and the audio operating unit.

The following graphic shows the display and operating elements of the G05:



G05 overview of the interior

Index	Explanation
1	Instrument cluster
2	Head-Up Display
3	Central Information Display
4	Air conditioning control panel
5	Audio operating unit
6	Gear selector switch
7	Controller
8	Center console control panel
9	Multifunction steering wheel

# 1. Operating Elements

#### 1.1.3. Overview of displays



G05 overview of displays

Index	Explanation
1	Head-Up Display (HUD)
2	Central Information Display (CID)
3	Instrument cluster (KOMBI)

## 1. Operating Elements

#### 1.1.4. Audio operating unit



G05 audio operating unit

Index	Explanation
1	Band AM/FM
2	Change entertainment source
3	Press: Switch sound output on/off; turn: Set volume
4	Favorite buttons
5	Press once: change station/track; press and hold: fast forward/rewind track

#### 1.1.5. Heating and air conditioning controls



G05 heating and air conditioning controls

# 1. Operating Elements

#### 1.2. Center console switch cluster

The following graphic shows the operating elements in the Center console:



G05 Center Operation Unit

Index	Explanation
1	Gear selector switch
2	Controller
3	Ride level control
4	xOffroad mode
5	Hill Descent Control
6	Electromechanical holding brake
7	Automatic Hold
8	Driving experience switch
9	Start/Stop button

## 1. Operating Elements

Index	Explanation
10	Activate/deactivate engine start/stop
11	Parking Manoeuvring Assistant
12	Surround view
13	Dynamic Stability Control

#### 1.2.1. Variants

The center console switch cluster consists of different equipment specifications:

- 2-axle air suspension (SA 2VR)
- xOffroad package (SA 3E3)
- Glass controls (SA 4A2)







Center console switch cluster variants

## 1. Operating Elements

Index	Explanation
А	Center console switch cluster
В	Center console switch cluster with the optional equipment Surround View Camera
С	Center console switch cluster with the optional equipment Surround View Camera and Glass controls

#### 1.2.2. Two-axle ride level control

The optional equipment self-levelling suspension (SA 2VR) allows variable adjustments to be made to the front and rear axle through which the suspension is adapted to the vehicle condition.

Using the xOffroad operating elements, transmission modes are activated to support the driver by making various adjustments to different drive and chassis and suspension systems (SA 3E3).



Operating strategy of xOffroad chassis and suspension package in the G05

Index	Explanation
Α	Driving mode "xSnow"
В	Driving mode "xSand"
С	Driving mode "xGravel"
D	Driving mode "xRocks"

## 1. Operating Elements

The operating elements for the two-axle ride level control and for xOffroad are shown in the following graphic:



G05 two-axle ride level control

Index	Explanation
1	Ride height selection switch (optional equipment 2–axle air suspension SA 2VR)
2	xOffroad operating elements (Driving Experience Control for optional equipment xOffroad SA 3E3)
3	Hill Descent Control

For more information on the self-levelling suspension and Offroad mode, refer to the product information "G05 Powertrain/Chassis".

### 1. Operating Elements

#### 1.3. Light operating unit

A new light operating unit is used for the first time in the G05. The light switch element is situated next to the steering wheel. With the optional equipment Night Vision w/pedestrian detection (SA 6UK) the light operating unit is additionally equipped with a Night Vision button.

The following graphic shows a light operating unit that features the maximum equipment specification.



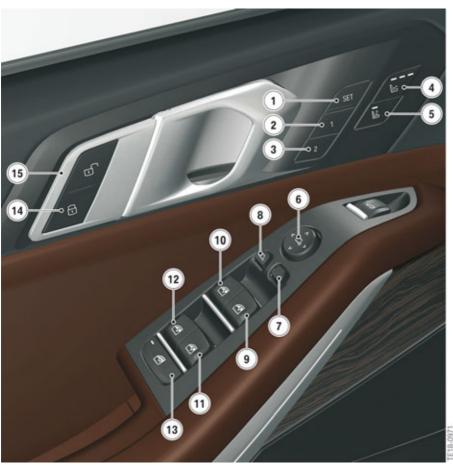
G05 light operating unit

Index	Explanation
1	Fog light
2	Lights off; daytime driving lights
3	Automatic driving lights control; adaptive lighting functions
4	Low-beam headlight
5	Night Vision (SA 6UK)
6	Instrument lighting
7	Right parking light
8	Side lights
9	Left parking light

# 1. Operating Elements

#### 1.4. Doors

Overview of the door operating unit:

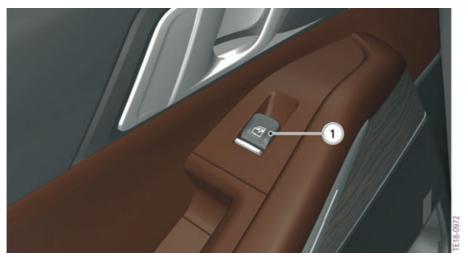


G05 operating element, door, driver's side

Index	Explanation
1	Memory button
2	Button for adjusting the seat position
3	Button for adjusting the seat position
4	Button for massage function
5	Gentleman function, front passenger seat
6	Button for adjusting the exterior mirror
7	Select the mirror, Automatic Curb Monitor
8	Fold the exterior rearview mirrors in and out
9	Power window regulator, passenger side
10	Power window regulator, driver's side
11	Power window for 2nd row of seats on passenger's side

## 1. Operating Elements

Index	Explanation
12	Power window for 2nd row of seats on driver's side
13	Safety switch
14	Button for locking the vehicle
15	Button for unlocking the vehicle



G05 power window switch, 2nd row of seats

Index	Explanation
1	Power window switch, 2nd row of seats

#### 1.5. 12 V power sockets

3 x 12 V power sockets are standard equipment in the G05.

The 12 V socket is installed in the following areas:

- in the center console at the front
- in the 2nd row of seats
- in the luggage compartment trim panel.

## 1. Operating Elements



G05 installation locations of 12 V power sockets

Index	Explanation
Α	12 V socket in the center console at the front
В	12 V socket behind the center armrest in the 2nd row of seats
С	12 V socket in the luggage compartment trim panel, rear right

#### 1.6. Air conditioning control panel

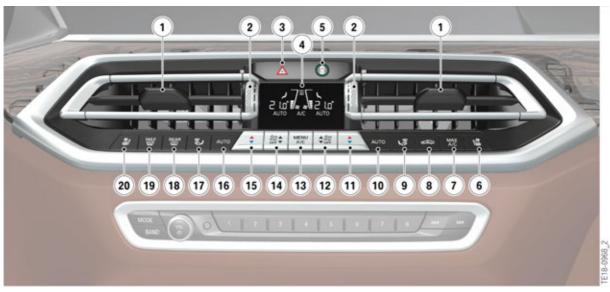
An integrated automatic heating/air conditioning system with 3/2 zone control is standard equipment in the G05.

It controls the vehicle interior as follows:

- Shared temperature control for rear seat passengers
- Automatic program with 5 intensity levels for driver and front passenger separately.

An integrated automatic heating/air conditioning system with 4/3 zone control is available as optional equipment on the xDrive 40i (SA 4NB) and standard on the xDrive50i.

## 1. Operating Elements



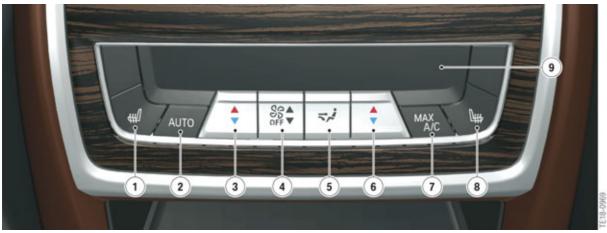
G05 air conditioning control panel, fresh air grille

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
6	Active seat ventilation/seat heating, right
7	Max. cooling on/off
8	Air recirculation function
9	Manual air distribution regulation, right
10	Automatic program, right
11	Temperature adjustment, right
12	Decrease/increase amount of air, right
13	Up A/C menu, down A/C On/Off
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

### 1. Operating Elements

#### 1.6.1. Air conditioning control panel, 2nd row of seats

The optional equipment integrated automatic heating/air conditioning system with 4/3 zone control (SA 4NB) includes a separate air conditioning control panel in the center console at the rear for the passengers in the 2nd row of seats.



G05 air conditioning control unit for automatic rear air-conditioning system, 2nd row of seats

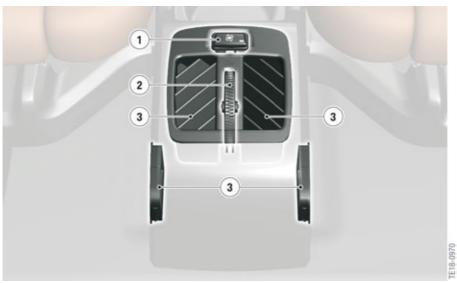
Index	Explanation
1	Seat heating, left
2	Automatic program
3	Temperature adjustment, left
4	Decrease/increase amount of air
5	Manual air distribution regulation
6	Temperature adjustment, right
7	Max. cooling on/off
8	Seat heating, right
9	Display

#### 1.6.2. Heating and ventilation, third-row seating

With the optional equipment third-row seating (SA 4UB) the G05 is equipped with heating and ventilation in the third-row seating.

The air in the area of the third-row seating can be heated or circulated. The outlets are located in the storage area between the seats and in the footwell of the third-row seating.

## 1. Operating Elements



G05 heating and ventilation, third-row seating

Index	Explanation
1	Button for switching the blower on and off
2	Knurled wheel for temperature setting
3	Outlet

The heating in the third-row seating is not operational unless the blower is activated. After the heating is switched off, the blower can be used to circulate the interior air, e.g. at high temperatures.

Further information on the heating and air conditioning systems of the G05 can be found in the Product Information "G05 Body".

#### 2. Instrument Cluster

#### 2.1. Introduction

A new instrument cluster is installed in the G05. The displays of the instrument cluster are shown on a 12.3" TFT display.



G05 instrument panel

#### 2.2. Connection

The instrument cluster is connected with the Head Unit High 3 via an Ethernet cable.



G05 connection of instrument cluster to the head unit

Index	Explanation
1	Instrument cluster (KOMBI)
2	Head unit

With the optional equipment Head-Up Display (SA 610) the Head-Up Display is additionally connected with the instrument cluster via an APIX connection.

## 2. Instrument Cluster



G05 connection of Head-Up Display

Index	Explanation
1	Head-Up Display (SA 610)
2	Instrument cluster (KOMBI)
3	Head Unit High 3

### 3. Controller

#### 3.1. Overview

A new controller is used in the G05. The controller has 8 direct access keys.



G05 controller view

Index	Explanation
1	Communication
2	Media
3	ConnectedDrive
4	Home
5	Navigation map
6	Navigation
7	Option
8	Back

### 3. Controller

#### 3.2. Installation location

The controller is situated in the Center Operation Unit.



G05 controller view

## 4. Central Information Display

The G05 is equipped with a Central Information Display with a screen diagonal of 12.3".



G05 Central Information Display

#### 4.1. ID7

The G05 contains a new user interface. This is called ID7 (BMW iDrive 7th generation).



ID7 menu view

Among other things, the menu view can be individually adapted with the ID7 user interface.

## 4. Central Information Display



Menu views of the ID7

Further information on the ID7 user interface can be found in the Product Information "Displays and Controls 2018".

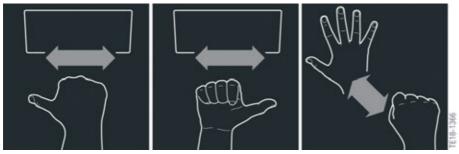
#### 5. Gesture Control

#### 5.1. Introduction

Some iDrive functions can be controlled by moving the hands with BMW gesture control.

In the G05 BMW gesture control is offered as optional equipment (SA 6U8).

With gesture control, 3 new gestures are additionally recognized by the gesture recognition camera in the G05.



New gesture functions

The detection range of the gesture recognition camera extends from the steering wheel via the Central Information Display (CID) to the glove box.



G05 detection range, gesture recognition camera

### 5. Gesture Control

Further information and an overview of the gesture functions used in the G05 can be found in the Product Information "Displays and Controls 2018".

#### 5.2. Installation location

The gesture recognition camera is integrated in the roof function center (FZD).

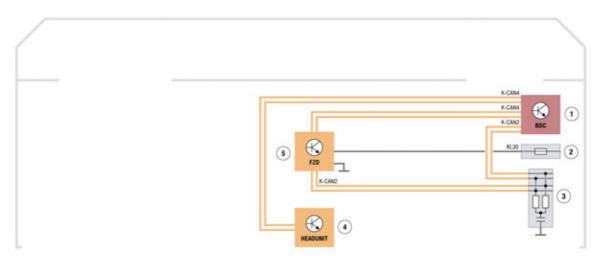


G05 installation location, gesture recognition camera

Index	Explanation
Α	Roof function center
1	Gesture recognition camera

### 5. Gesture Control

#### 5.3. System wiring diagram



G05 system wiring diagram, gesture control

Index	Explanation
1	Body Domain Controller (BDC)
2	Fuse for front right power distribution box
3	CAN terminator
4	Head unit
5	Roof function center (FZD)

## 6. Head-Up Display

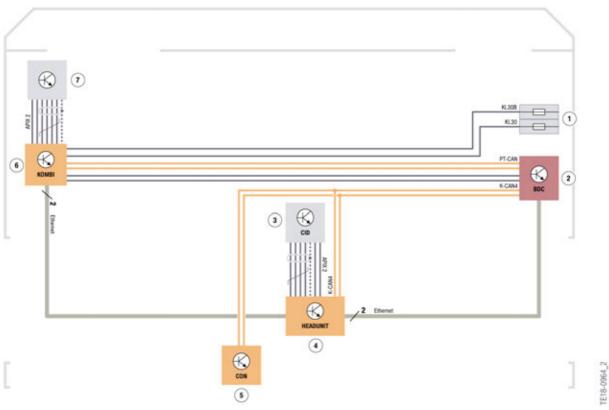
#### 6.1. Introduction

The Head-Up Display (HUD) projects a virtual, transparent image onto the windscreen in the driver's field of view.

It also offers the driver the opportunity to see all the information relevant to the driver directly in his/her field of view floating above the roadway.

The Head-Up Display is offered as optional equipment (SA 610) in the G05.

#### 6.2. System wiring diagram



G05 system wiring diagram for Head-Up Display

Index	Explanation
1	Fuses in power distribution box, front right
2	Body Domain Controller (BDC)
3	Central Information Display (CID)
4	Head unit
5	Controller
6	Instrument cluster (KOMBI)
7	Head-Up Display (HUD)

## 7. Multifunction Steering Wheel

#### 7.1. Variants

#### 7.1.1. Assistance systems

The following graphic provides an overview of the assistance system buttons on the multifunction steering wheel with the maximum equipment specification.

Further information on the individual equipment specifications can be found in the product information "G05 Driver Assistance Systems".



G05 multifunction steering wheel, assistance systems

Index	Explanation
1	Rocker switch for changing the set speed
2	LED display
3	Speed limit ON/OFF
4	Increase distance to the vehicle ahead
5	Button for selecting the assistance system Possible selection: Only ACC Stop & Go or ACC Stop & Go with Steering Assistant

## 7. Multifunction Steering Wheel

Index	Explanation
6	Button for activating or deactivating the assistance system selected using the mode button
7	Set the current speed On vehicles with Automatic Speed Limit Assistant: Automatic Speed Limit Assist deactivated: Adoption of the suggested speed limit. Automatic Speed Limit Assist activated: Switch back to the last set speed set
8	Reduce distance to the vehicle ahead
9	Resume/Cancel button for resuming a set speed/temporarily deactivating the cruse control

#### 7.1.2. Multimedia

The following graphic provides an overview of the buttons for multimedia applications on the multifunction steering wheel:



G05 multifunction steering wheel, multimedia

Index	Explanation
1	Rocker switch -, reduce volume
2	Knurled wheel, select in the selection list
3	LED display
4	Rocker switch +, increase volume
5	Press once: change station/track; press and hold: fast forward track

# 7. Multifunction Steering Wheel

Index	Explanation
6	Voice processing system
7	Selection lists
8	Telephone
9	Press once: change station/track; press and hold: fast rewind track

The Selection lists button can be used to display lists such as the Entertainment list or the playlist in the instrument cluster or in the Head-Up Display.





Displays of selection lists

Index	Explanation
1	Display of the playlist in the Head-Up Display
2	Entertainment list in the instrument cluster

# 7. Multifunction Steering Wheel

#### 7.1.3. Steering wheel heating



G05 steering wheel heating

Index	Explanation
1	Button, steering wheel heating

