

Technical training.
Product information.

G30 Infotainment



BMW Service

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

ST1604

11/1/2016

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 and national-market versions

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.

This document basically relates to the European version of left hand drive vehicles. Some operating elements or components are arranged differently in right-hand drive vehicles than shown in the graphics in this document. Further differences may arise as the result of the equipment specification in specific markets or countries.

Additional sources of information

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

- Owner's Handbook
- Integrated Service Technical Application.

Contact: conceptinfo@bmw.de

©2016 BMW AG, Munich

Reprints of this publication or its parts require the written approval of BMW AG, Munich

The information contained in this document forms an integral part of the BMW Group Technical Qualification and is intended for the trainer and participants in the seminar. Refer to the latest relevant information systems of the BMW Group for any changes/additions to the technical data.

Information status: **September 2016**
Technical training.

G30 Infotainment

Contents

1.	Introduction.....	1
1.1.	New features in the G30.....	1
2.	Headunit.....	2
2.1.	Introduction.....	2
2.2.	Further information.....	2
3.	Speaker Systems.....	3
3.1.	Overview.....	3
3.2.	HiFi system.....	4
3.2.1.	System wiring diagram.....	4
3.2.2.	System overview.....	6
3.3.	Harman Kardon system.....	7
3.3.1.	System wiring diagram.....	7
3.3.2.	System overview.....	9
3.4.	Bowers & Wilkins Diamond Surround Sound System.....	10
3.4.1.	System wiring diagram.....	10
3.4.2.	System overview.....	12
3.5.	Service.....	12
4.	Antenna System.....	13
4.1.	Overview.....	13
4.1.1.	System wiring diagram antenna system multimedia.....	15
4.1.2.	System wiring diagram antenna system telephone and telematics.....	17
4.1.3.	Lower.....	19
4.1.4.	Roof antenna.....	20
4.1.5.	Components.....	21
4.2.	Bluetooth antenna.....	22
4.3.	WiFi antenna.....	23
5.	Rear Seat Entertainment.....	24
5.1.	Overview.....	24
5.2.	System wiring diagram.....	25
5.3.	Function overview.....	27



G30 Infotainment

1. Introduction

1.1. New features in the G30

The G30 builds on the technology of the G12. This product information manual describes the new features or changes compared to the G12.

The following table shows the new features and changes in the G30 compared to the G12:

Function/component	New feature/change
Speaker systems	Hi-fi system
	
Rear seat entertainment system	Operation by remote control only
	

G30 Infotainment

2. Headunit

2.1. Introduction

In the G30, one headunit is installed:

- Headunit High 2 (HU-H2)

With the G12, the HU-H2 received a function hub with new user interface (ID5). The user interface of the HU-H2 has been revised again in the G30 compared to the G12.

You can find further information about the revised user interface in the “G30 Display and Operating Elements” product information.

2.2. Further information

The hardware of the HU-H2 is already known from other BMW models. You can find additional information about this in the following Technical Reference manual:

- ST1502 F23 Complete Vehicle
- ST1501 G12 Complete Vehicle “section Audio Systems”

G30 Infotainment

3. Speaker Systems

3.1. Overview

In the G30, 3 speaker systems are offered. A Hi-fi system is installed as standard equipment. The following table gives you an overview of the speaker systems utilized in the G30:

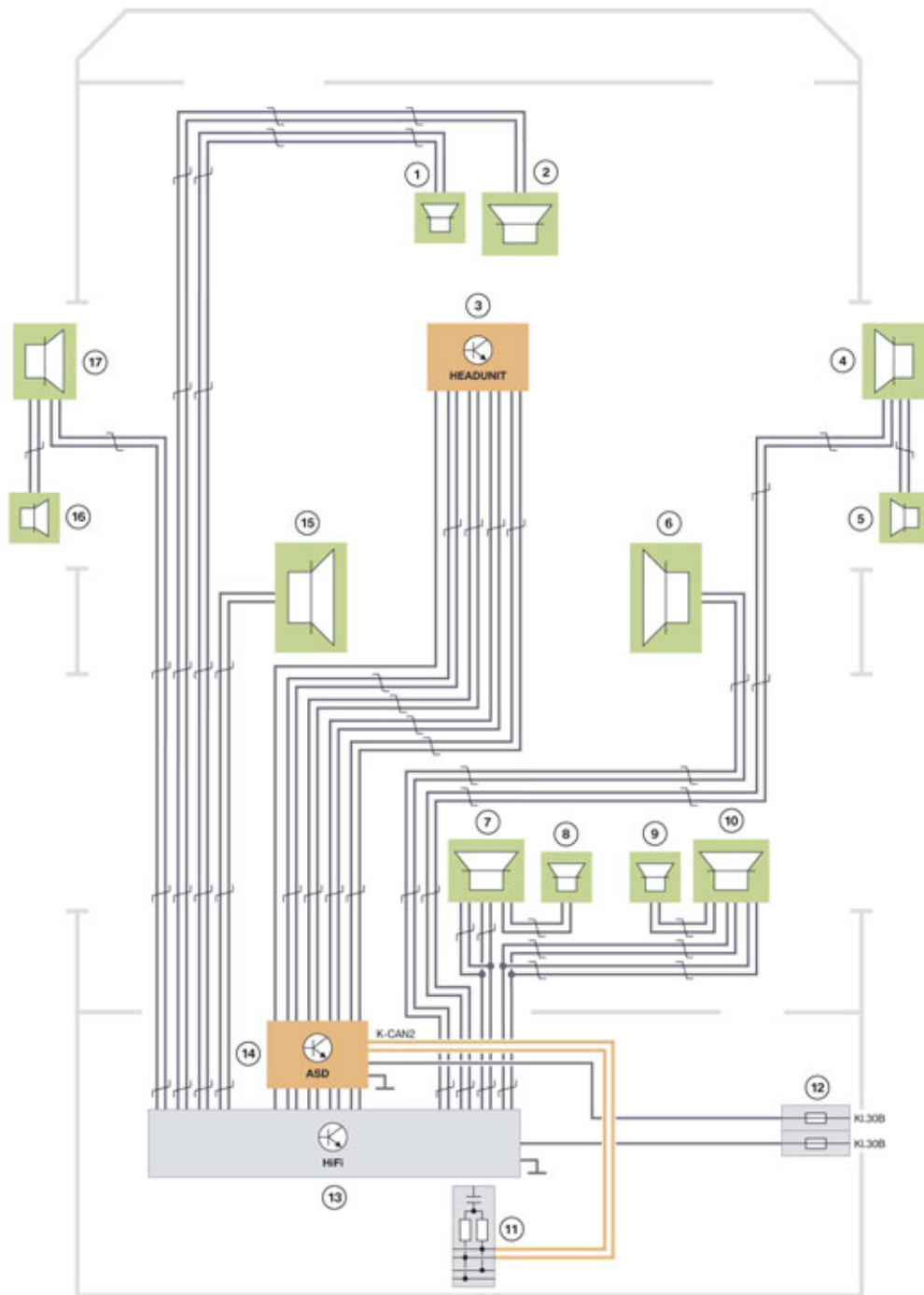
Speaker system [overall power in watts]	Speakers total	Bus connection
Hi-fi system (standard) [205 W]	12	—
Harman Kardon Surround Sound System (OE 688) [600 W]	16	MOST
Bowers & Wilkins Diamond Surround Sound System (OE 6F1) [1400 W]*	16	MOST

G30 Infotainment

3. Speaker Systems

3.2. HiFi system

3.2.1. System wiring diagram



G30 System wiring diagram of hi-fi system

TE16-0984

G30 Infotainment

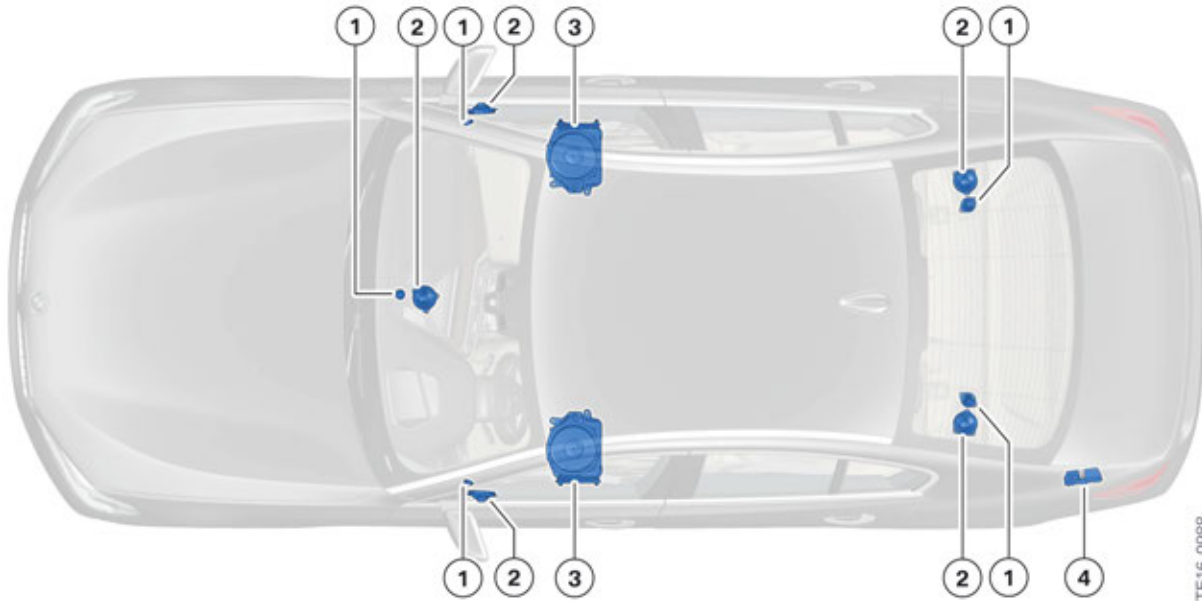
3. Speaker Systems

Index	Explanation
1	Tweeter, front center
2	Mid-range speaker, front center
3	Headunit
4	Mid-range speaker, front right
5	Tweeter, front right
6	Bass speaker, right
7	Mid-range speaker, storage shelf on left
8	Tweeter, rear window shelf, left
9	Tweeter, rear window shelf, right
10	Mid-range speaker, rear window shelf, right
11	CAN terminator
12	Fuses in the power distribution box of the luggage compartment
13	HiFi amplifier
14	Active Sound Design (ASD)
15	Bass speaker, left
16	Tweeter, front left
17	Mid-range speaker, front left

G30 Infotainment

3. Speaker Systems

3.2.2. System overview



G30 System overview hi-fi system

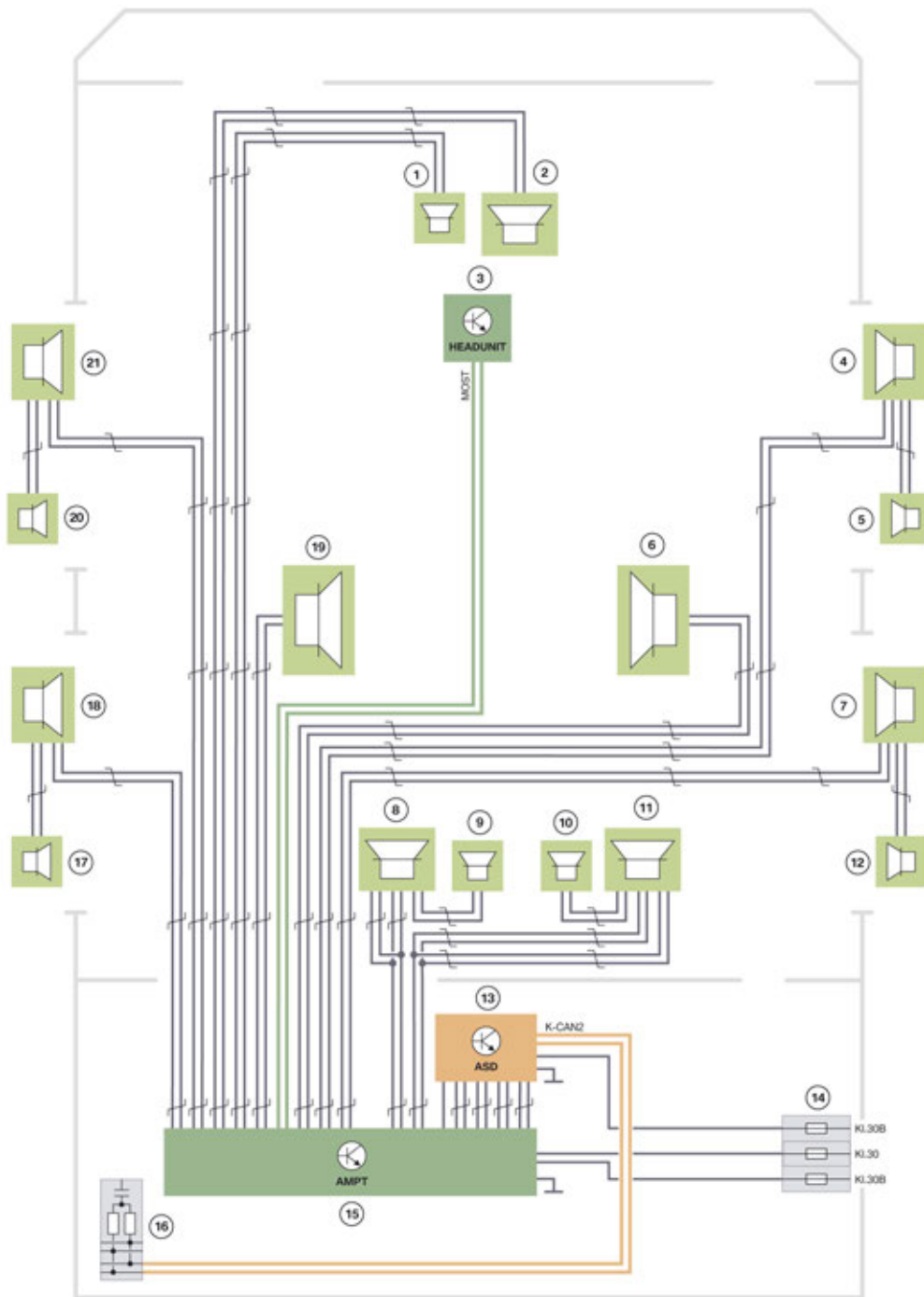
Index	Explanation
1	Tweeters
2	Mid-range speakers
3	Bass speakers
4	HiFi amplifier

G30 Infotainment

3. Speaker Systems

3.3. Harman Kardon system

3.3.1. System wiring diagram



G30 System wiring diagram, Harman Kardon system

TE14-1747

G30 Infotainment

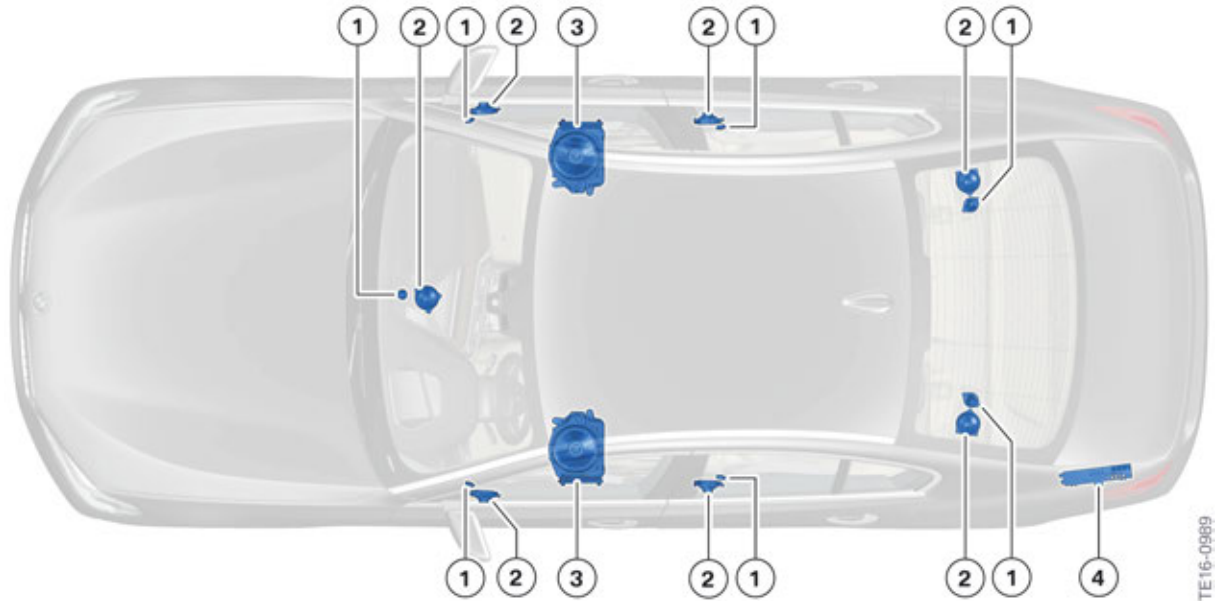
3. Speaker Systems

Index	Explanation
1	Tweeter, front center
2	Mid-range speaker, front center
3	Headunit
4	Mid-range speaker, front right
5	Tweeter, front right
6	Bass speaker, right
7	Mid-range speaker, rear right
8	Mid-range speaker, storage shelf on left
9	Tweeter, left storage shelf
10	Tweeter, rear window shelf, right
11	Mid-range speaker, rear window shelf, right
12	Tweeter, rear right
13	Active Sound Design (ASD)
14	Fuses in the power distribution box of the luggage compartment
15	Amplifier Top (top high fidelity amplifier)
16	CAN terminator
17	Tweeter, rear left
18	Mid-range speaker, rear left
19	Bass speaker, left
20	Tweeter, front left
21	Mid-range speaker, front left

G30 Infotainment

3. Speaker Systems

3.3.2. System overview



G30 System overview Harman Kardon system

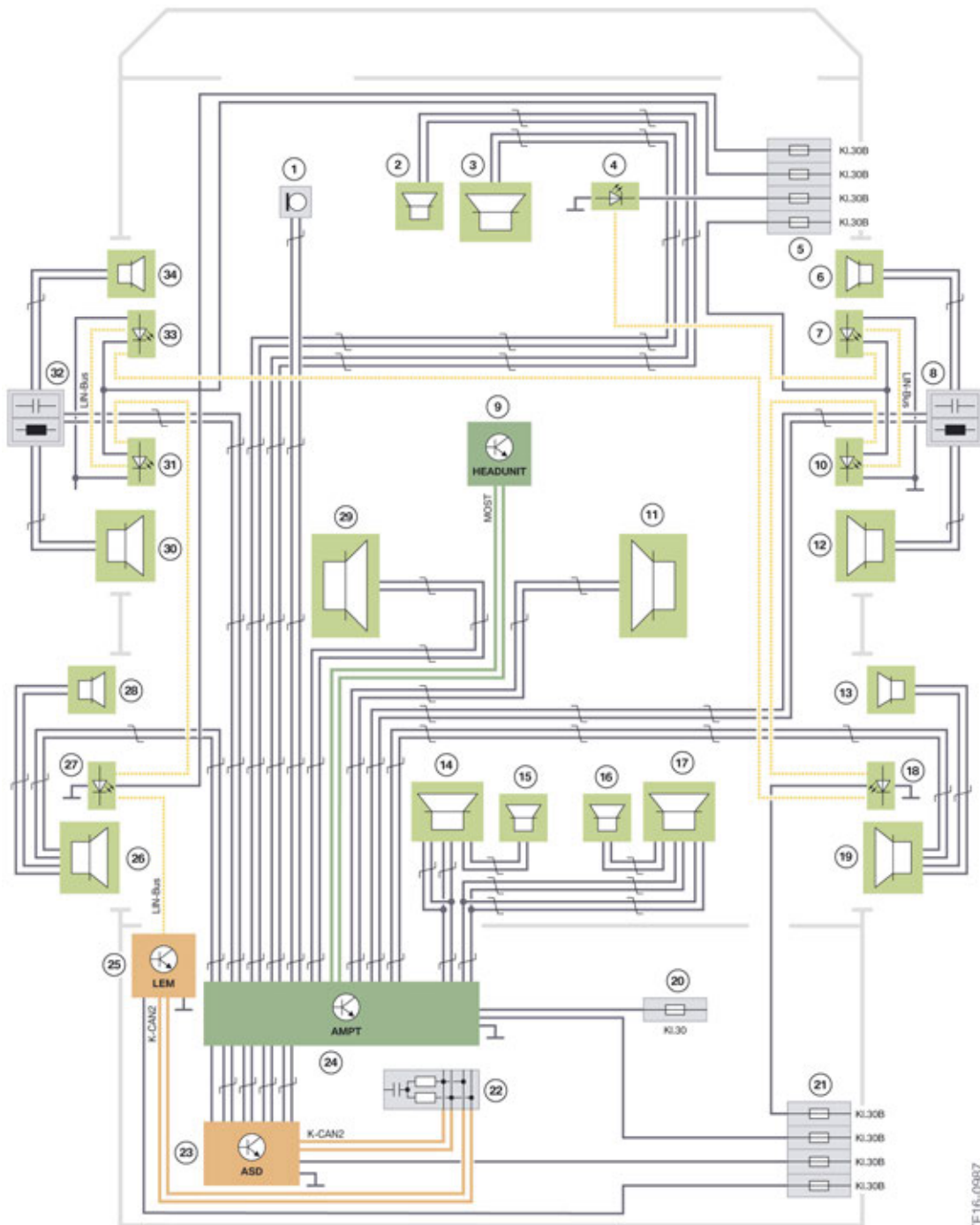
Index	Explanation
1	Tweeters
2	Mid-range speakers
3	Bass speakers
4	Amplifier Top (top high fidelity amplifier)

G30 Infotainment

3. Speaker Systems

3.4. Bowers & Wilkins Diamond Surround Sound System

3.4.1. System wiring diagram



G30 System wiring diagram Bowers & Wilkins Diamond Surround Sound system

TE16-0987

G30 Infotainment

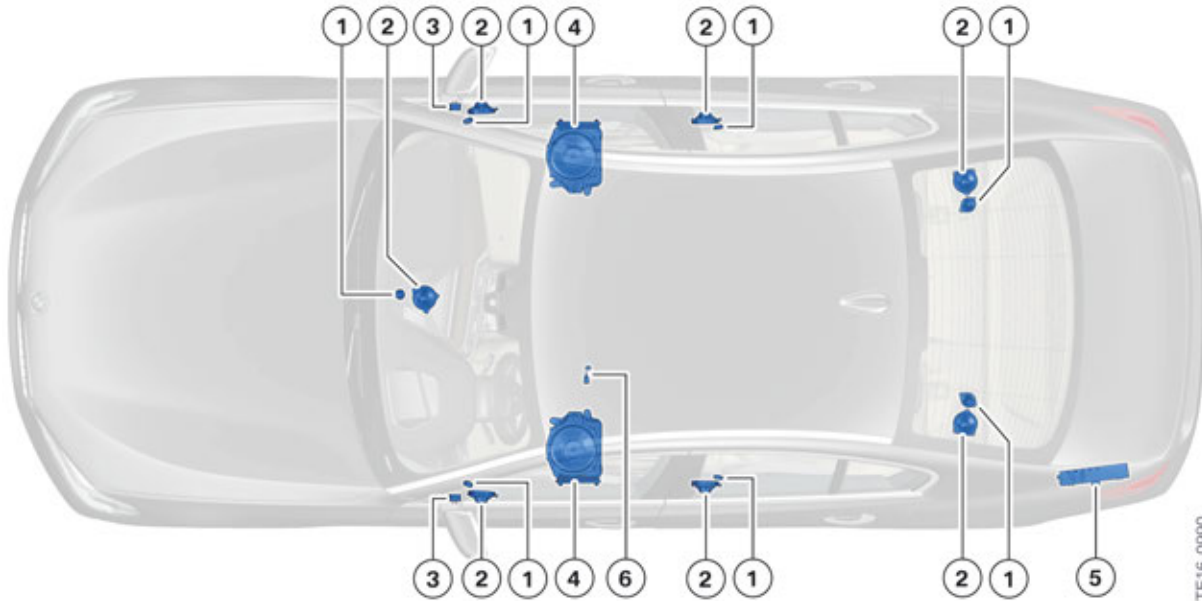
3. Speaker Systems

Index	Explanation
1	Sound design microphone
2	Tweeter, front center
3	Mid-range speaker, front center
4	Front center LED
5	Fuses in power distribution box, front right
6	Tweeter, front right
7	Mirror triangle LED, front right
8	Active frequency diplexer, front right
9	Headunit
10	Speaker cover LED, front right
11	Bass speaker, right
12	Mid-range speaker in the front right door trim panel
13	Tweeter, rear right
14	Mid-range speaker, storage shelf on left
15	Tweeter, rear window shelf, left
16	Tweeter, rear window shelf, right
17	Mid-range speaker, rear window shelf, right
18	Speaker cover LED, rear right
19	Mid-range speaker, rear right
20	Fuse in the power distribution box, battery
21	Luggage compartment power distribution box fuse
22	CAN terminator
23	Active Sound Design (ASD)
24	Amplifier Top (top high fidelity amplifier) AMPT
25	Light Effect Manager (LEM)
26	Mid-range speaker, rear left
27	Speaker cover LED, rear left
28	Tweeter, rear left
29	Bass speaker, left
30	Mid-range speaker, front left
31	Speaker cover LED, front left
32	Active frequency diplexer, front left door
33	Left mirror triangle LED
34	Tweeter, front left

G30 Infotainment

3. Speaker Systems

3.4.2. System overview



G30 System overview Bowers & Wilkins Diamond Surround Sound system

Index	Explanation
1	Tweeters
2	Mid-range speakers
3	Active frequency diplexer
4	Bass speakers
5	Amplifier Top (top high fidelity amplifier)
6	Microphone, driver's side

3.5. Service

When removing and installing the bass speakers, it is important to ensure that the gasket is seated properly. If the gasket is destroyed or damaged during the installation, it could lead to the ingress of water into the vehicle interior in some cases.

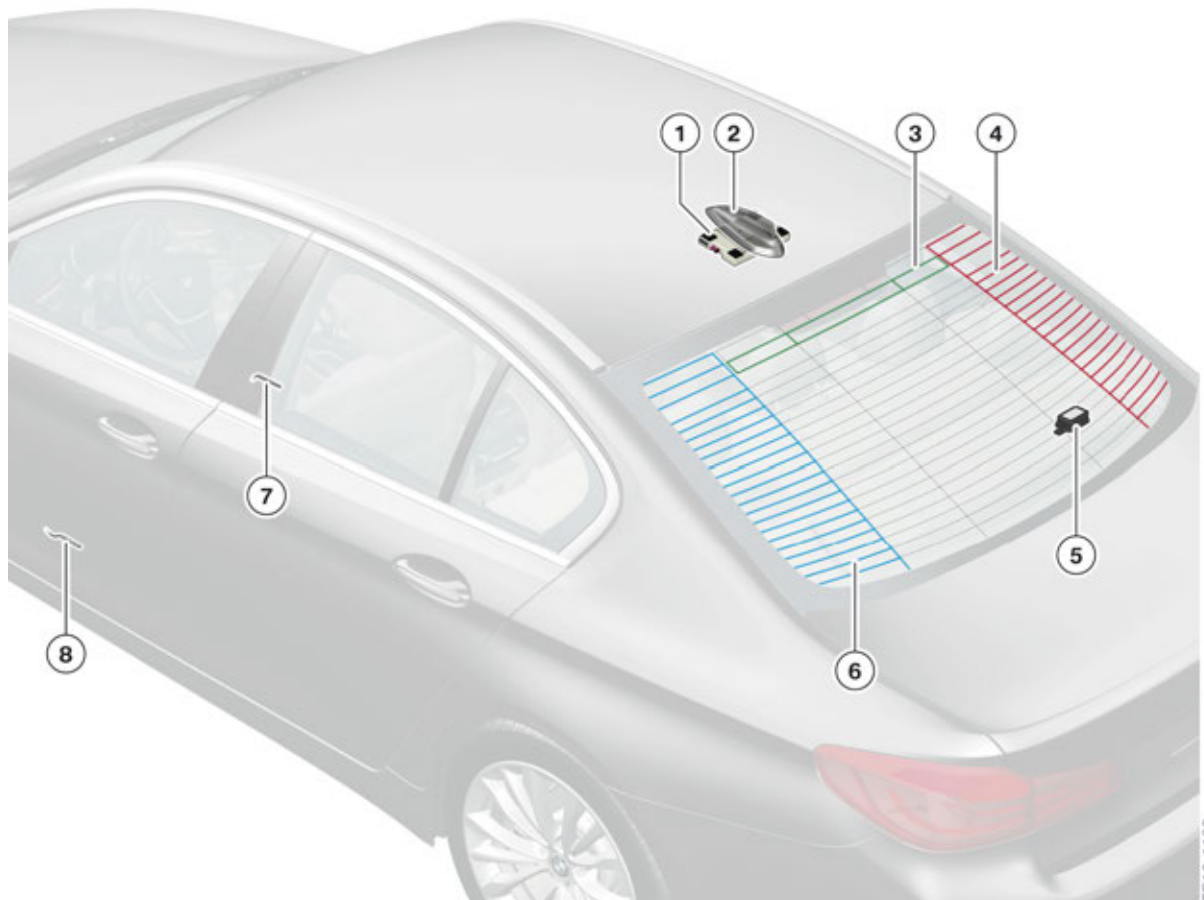
G30 Infotainment

4. Antenna System

4.1. Overview

The G30 has different antenna systems, depending on the optional equipment:

Antenna	Installation location
FM antenna	FM1 and FM2 in the rear window
AM antenna	Lower
SDARS antenna	Roof antenna
GPS antenna	Roof antenna
Remote control services antenna	Underneath the storage shelf
Telephone antenna (telephone and telematics services)	Roof antenna
Bluetooth antenna	Integrated in the wiring harness
WiFi antenna	Vehicle WiFi integrated into the wiring harness Hotspot in the TCB2
Emergency GSM antenna	TCB2



G30 Antennas overview

G30 Infotainment

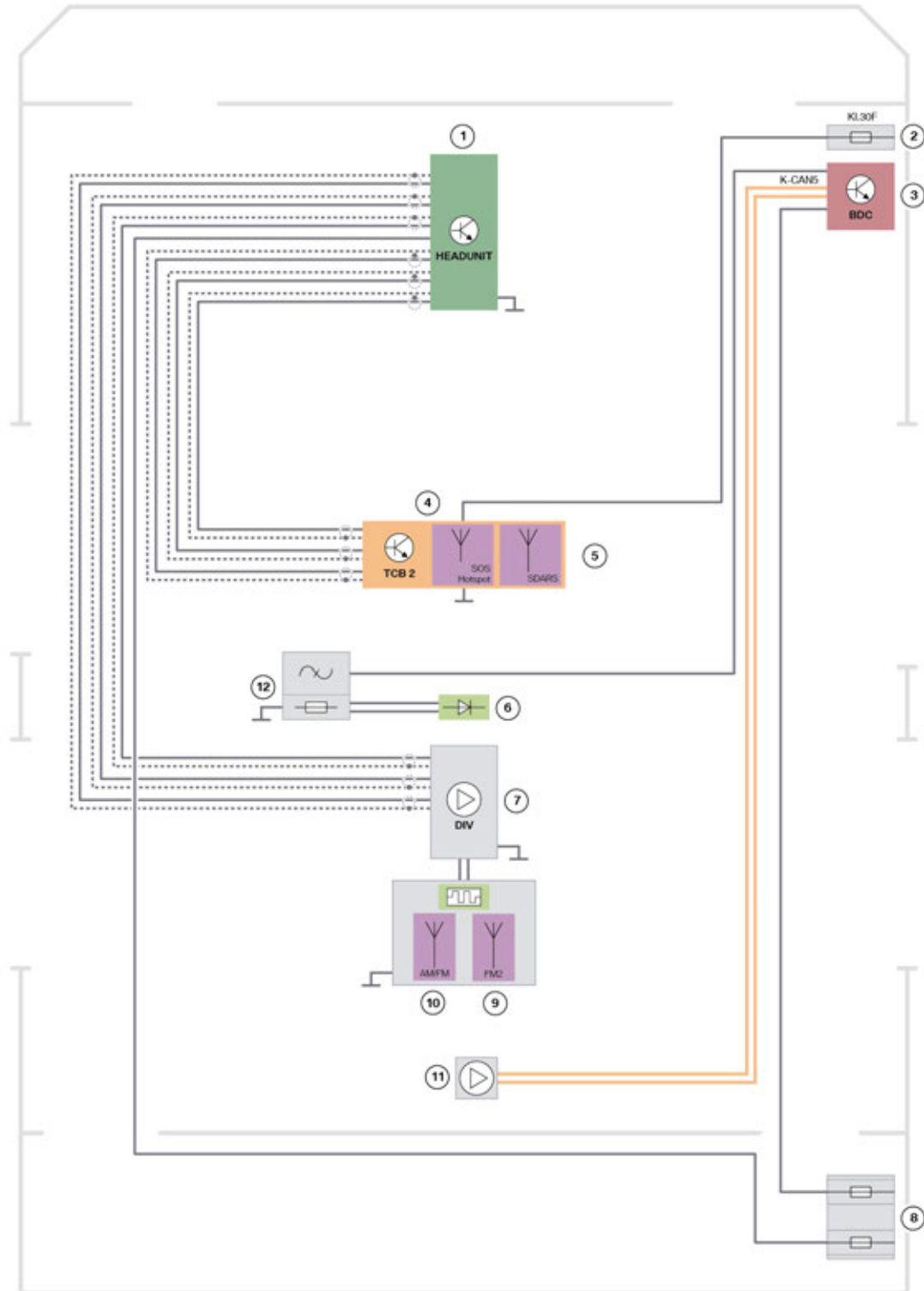
4. Antenna System

Index	Explanation
1	Telematic Communication Box 2 (TCB2) (hotspot, emergency GSM antenna)
2	Roof-mounted antenna (GPS antenna, telephone antenna, SDARS)
3	AM antenna
4	FM2 antenna
5	Remote control receiver
6	FM1 antenna
7	Bluetooth antenna
8	WiFi antenna

G30 Infotainment

4. Antenna System

4.1.1. System wiring diagram antenna system multimedia



G30 antenna system multimedia

TE16-0878_2

G30 Infotainment

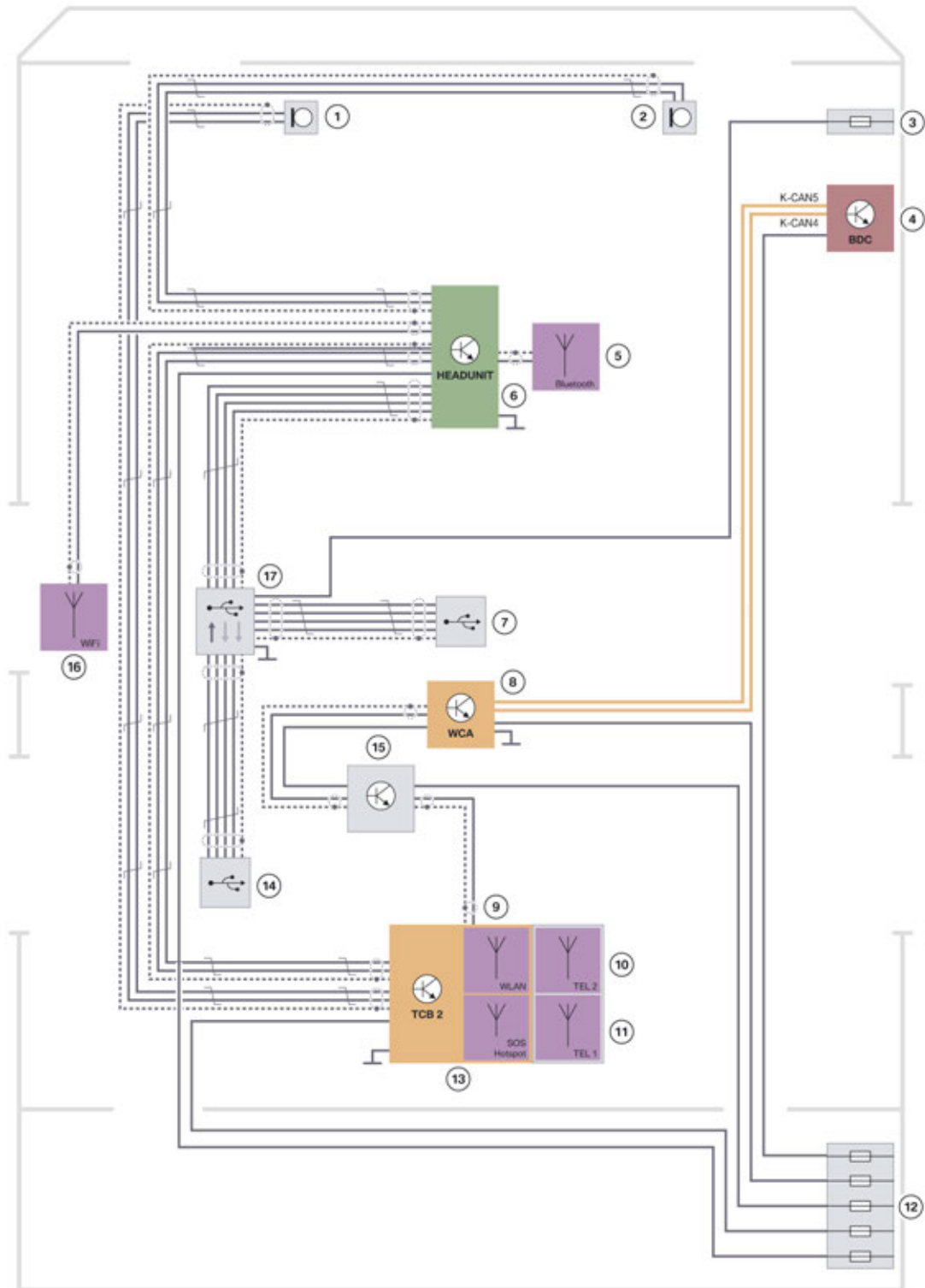
4. Antenna System

Index	Explanation
1	Headunit
2	Fuse for front right power distribution box
3	Body Domain Controller (BDC)
4	Telematic Communication Box 2 (TCB2) with integrated emergency GSM antenna
5	SDARS antenna
6	Additional brake light
7	Antenna diversity module
8	Fuses in the power distribution box of the luggage compartment
9	FM2 antenna
10	AM/FM1 antenna
11	Remote control receiver
12	Interference suppression filter

G30 Infotainment

4. Antenna System

4.1.2. System wiring diagram antenna system telephone and telematics



TE16-0879

G30 antenna system telephone telematics

G30 Infotainment

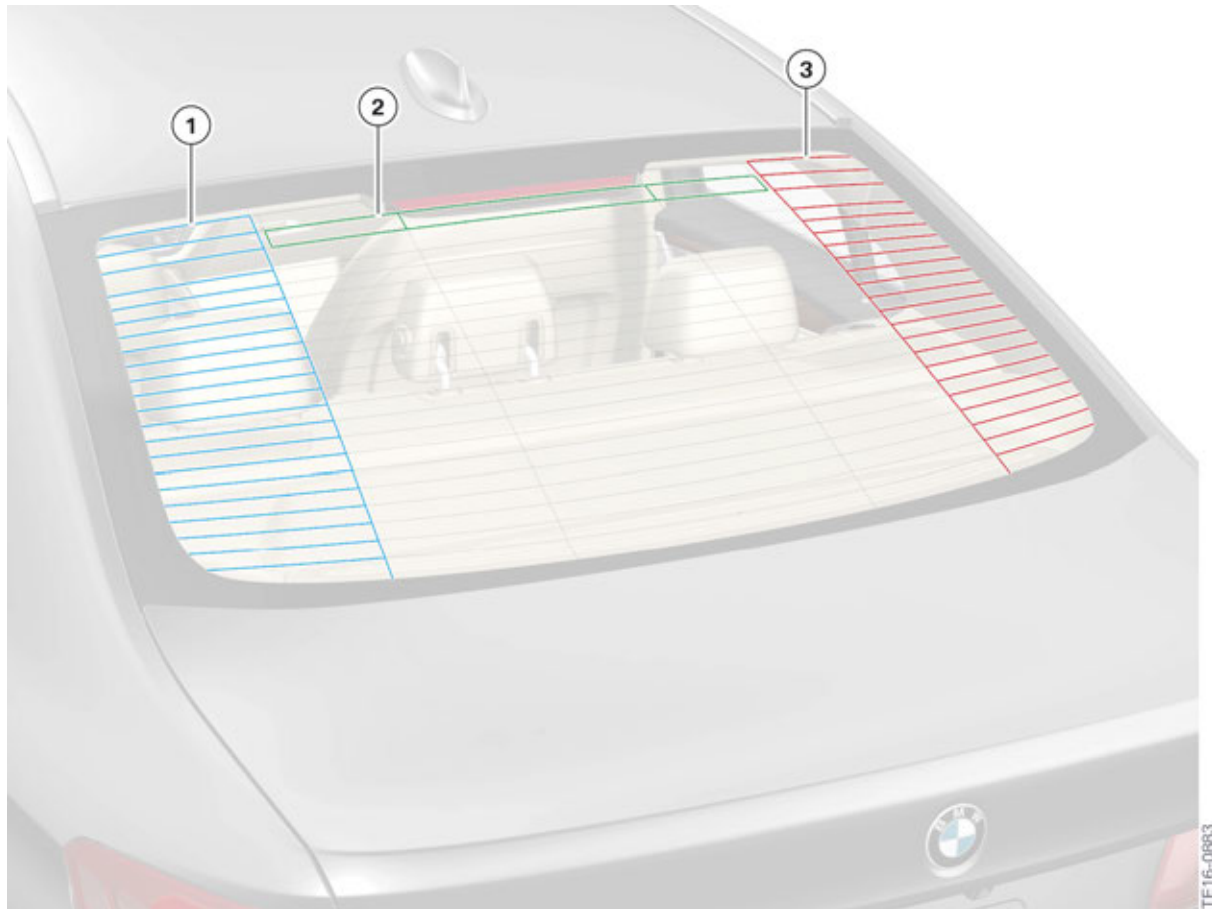
4. Antenna System

Index	Explanation
1	Microphone, driver's side
2	Passenger's side microphone, in conjunction with the convenient telephone with enhanced smartphone connection (OE 6NS) or telephone with wireless charging (OE 6NW)
3	Fuse for front right power distribution box
4	Body Domain Controller (BDC)
5	Bluetooth antenna
6	Headunit
7	USB interface, front center console
8	Wireless charging station
9	WiFi antenna hotspot (integrated in the TCB2)
10	TEL2 antenna (telematics connection)
11	TEL1 antenna (connection for customer mobile telephone with optional equipment telephone with wireless charging (OE 6NW) and telematics services)
12	Fuses in the power distribution box of the luggage compartment
13	Telematic Communication Box 2 (TCB2) (emergency GSM antenna)
14	USB interface, front center console below the center armrest
15	LTE line compensator
16	WiFi antenna (vehicle WiFi)
17	USB hub

G30 Infotainment

4. Antenna System

4.1.3. Lower



G30 Antennas – rear window

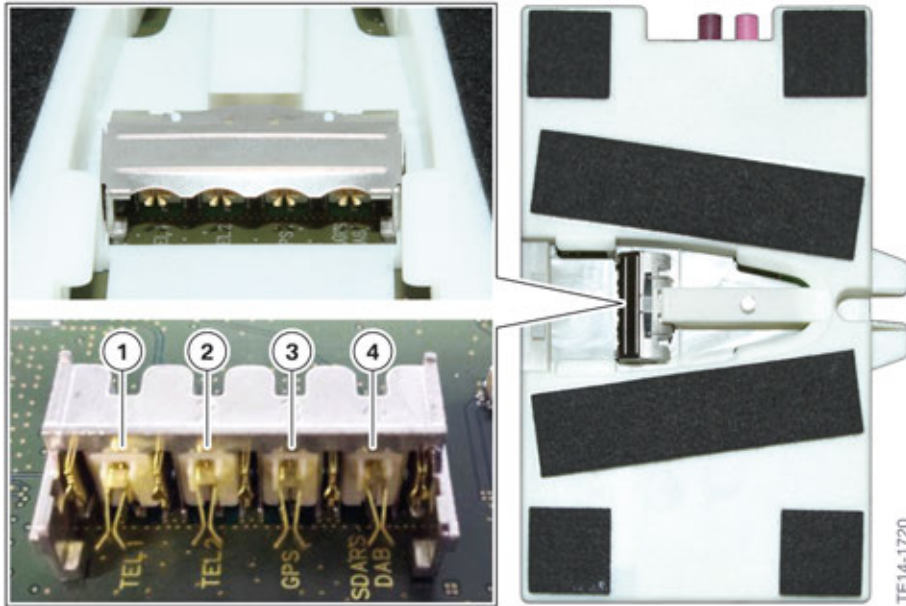
Index	Explanation
1	FM1
2	AM
3	FM2

G30 Infotainment

4. Antenna System

4.1.4. Roof antenna

The TCB2 is designed as roof variant in the G30. The roof-mounted antenna is connected directly with the TCB2 via plug-in contacts.



G30 connection roof-mounted antenna

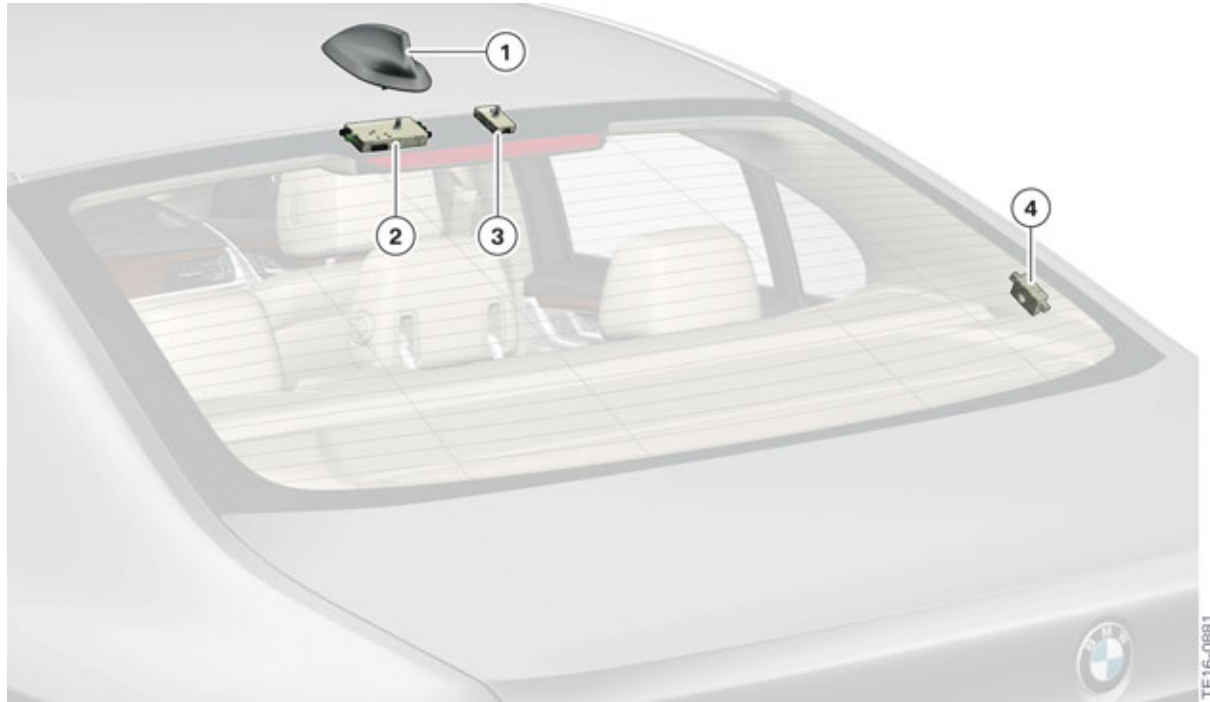
Index	Explanation
1	TEL1 (telephone connection customer telephone and telematics connection)
2	TEL2 (telematics connection)
3	GPS
4	SDARS

You can find additional information about the TCB2 as roof variant in the “ST1501 G12 Complete Vehicle” Telephone and Telematics Systems section of the Technical Reference manual.

G30 Infotainment

4. Antenna System

4.1.5. Components



G30 components antennas

Index	Explanation
1	Roof antenna
2	Wave trap additional brake light
3	Antenna amplifier
4	Wave trap, heated rear window

G30 Infotainment

4. Antenna System

4.2. Bluetooth antenna

The Bluetooth antenna is installed on the side in the area of the center console. The Bluetooth antenna is designed as simple cable antenna.



G30 Bluetooth antenna

Index	Explanation
1	Bluetooth antenna

G30 Infotainment

4. Antenna System

4.3. WiFi antenna

The antenna for the vehicle WiFi is installed in the area of the left side sill. The WiFi antenna is designed as simple cable antenna.



G30 WiFi antenna vehicle WiFi

Index	Explanation
1	WiFi antenna



The WiFi antenna for the hotspot is integrated in the TCB2.

G30 Infotainment

5. Rear Seat Entertainment

5.1. Overview

The rear seat entertainment in the G30 is available as optional equipment (OE 6FH).

The rear seat entertainment corresponds to that of the G12, with the difference that the G30 does **not** include the BMW Touch Command for controlling the rear seat entertainment. The rear seat entertainment is controlled exclusively via the rear passenger compartment remote control.

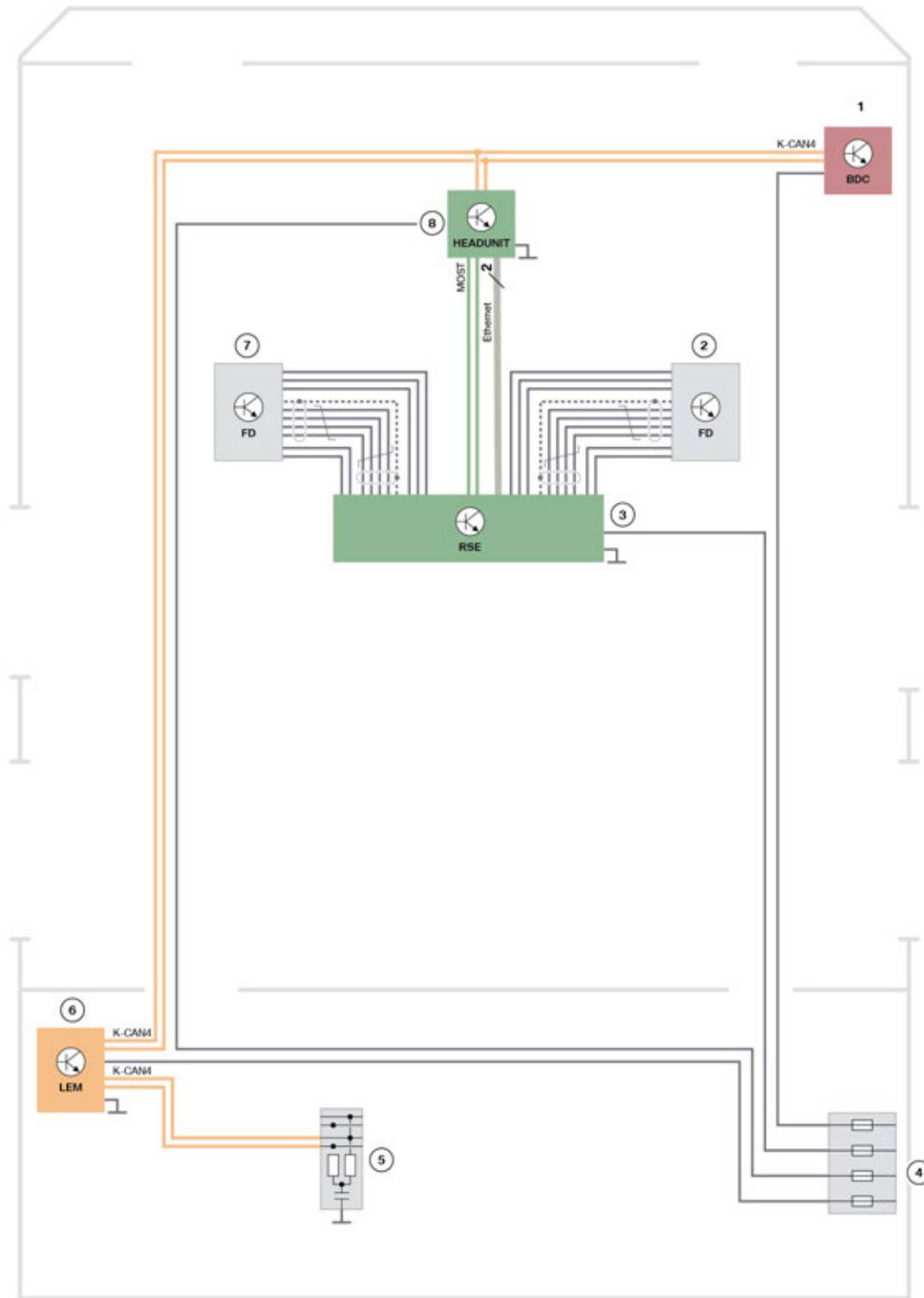


G30 Rear display

G30 Infotainment

5. Rear Seat Entertainment

5.2. System wiring diagram



TE16-0880_2

G30 Rear seat entertainment system

G30 Infotainment

5. Rear Seat Entertainment

Index	Explanation
1	Body Domain Controller (BDC)
2	Right rear compartment display
3	Rear Seat Entertainment (RSE)
4	Fuses in the power distribution box of the luggage compartment
5	CAN terminator
6	Light Effect Manager (LEM)
7	Left rear compartment display
8	Headunit

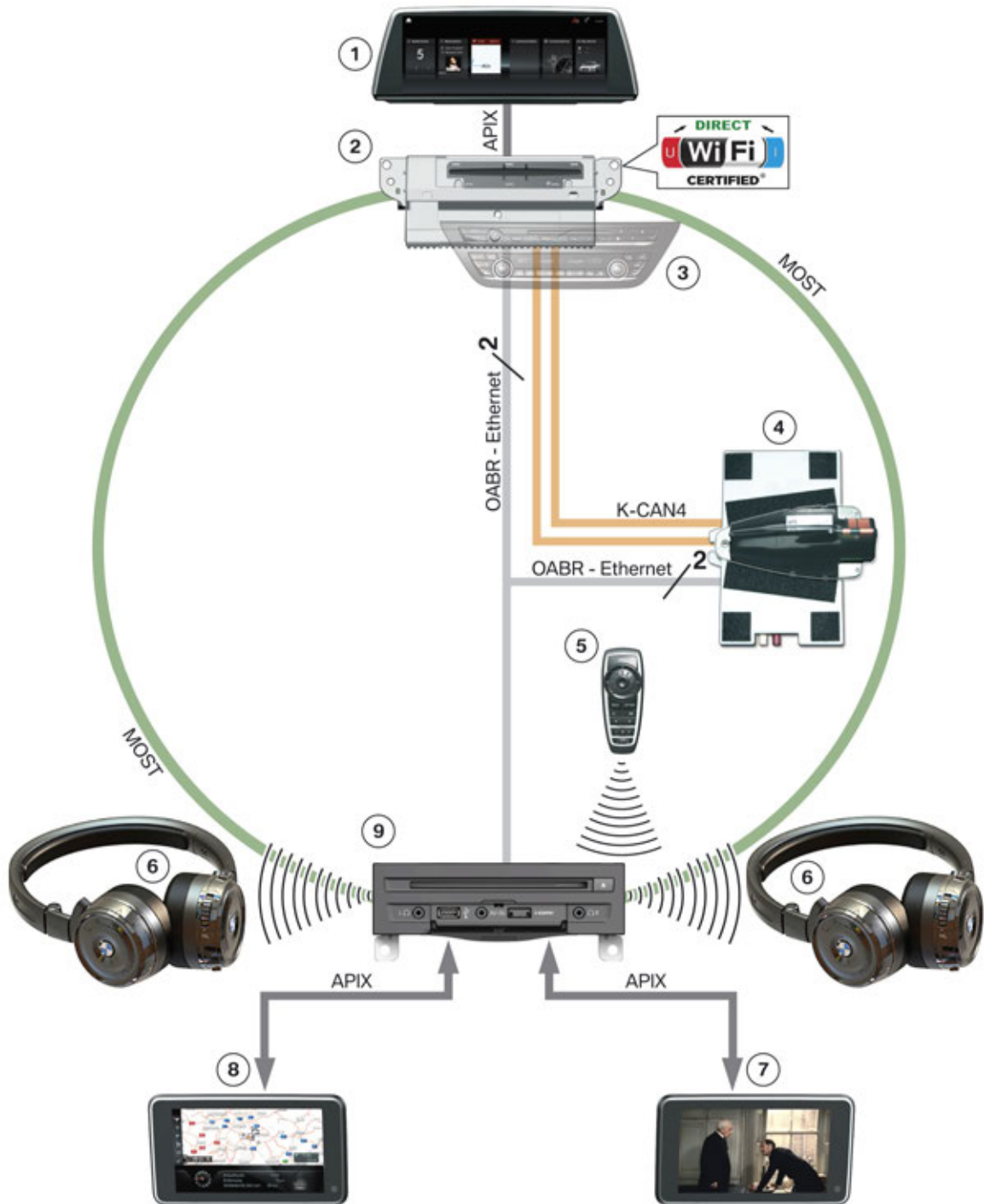


BMW Online Entertainment can not be operated via the rear seat entertainment.

G30 Infotainment

5. Rear Seat Entertainment

5.3. Function overview



G30 Function overview of rear seat entertainment system

TE16-0983

G30 Infotainment

5. Rear Seat Entertainment

Index	Explanation
1	Central Information Display (CID)
2	Headunit High 2 (HU-H2)
3	Radio operating unit
4	Telematic Communication Box 2 (TCB2)
5	Rear passenger compartment remote control
6	Headphones
7	Right rear compartment display
8	Left rear compartment display
9	Rear Seat Entertainment (RSE)



Bayerische Motorenwerke Aktiengesellschaft
Händlerqualifizierung und Training
Röntgenstraße 7
85716 Unterschleißheim, Germany