

**Technical training.**  
Product information.

## **G01 Infotainment**



**BMW Service**

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

ST1701

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# General information

## Symbols used

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



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

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## 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 a 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.

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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.

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# G01 Infotainment

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# G01 Infotainment

## 1. Introduction

### 1.1. Overview

The G01 builds on the technologies in the G30.

In the following table you will find the innovations and changes of the G01 in comparison with G30:

<b>Function/System</b>	<b>New feature/change</b>
Speaker system	Installation locations of speakers Bowers & Wilkins Diamond Surround Sound system not offered
Antenna system	Installation locations of antennas Phase diversity

# G01 Infotainment

## 2. Speaker Systems

### 2.1. Overview

The G01 comes with two different speaker systems, depending on equipment:

- HiFi sound system
- Harman Kardon Surround Sound System (OE 688).

The Bowers & Wilkins Diamond Surround Sound system is not offered in the G01.

The following table provides an overview of the speaker systems of the G01:

	<b>HiFi sound system</b>	<b>Harman Kardon Surround Sound System (OE 688)</b>
<b>Overall power</b>	205 W	600 W
<b>Number of tweeters</b>	5	7
<b>Number of mid-range speakers</b>	5	7
<b>Number of bass speakers</b>	2	2
<b>Amplifier</b>	HiFi amplifier (without bus)	Top HiFi (MOST)

### 2.2. HiFi sound system

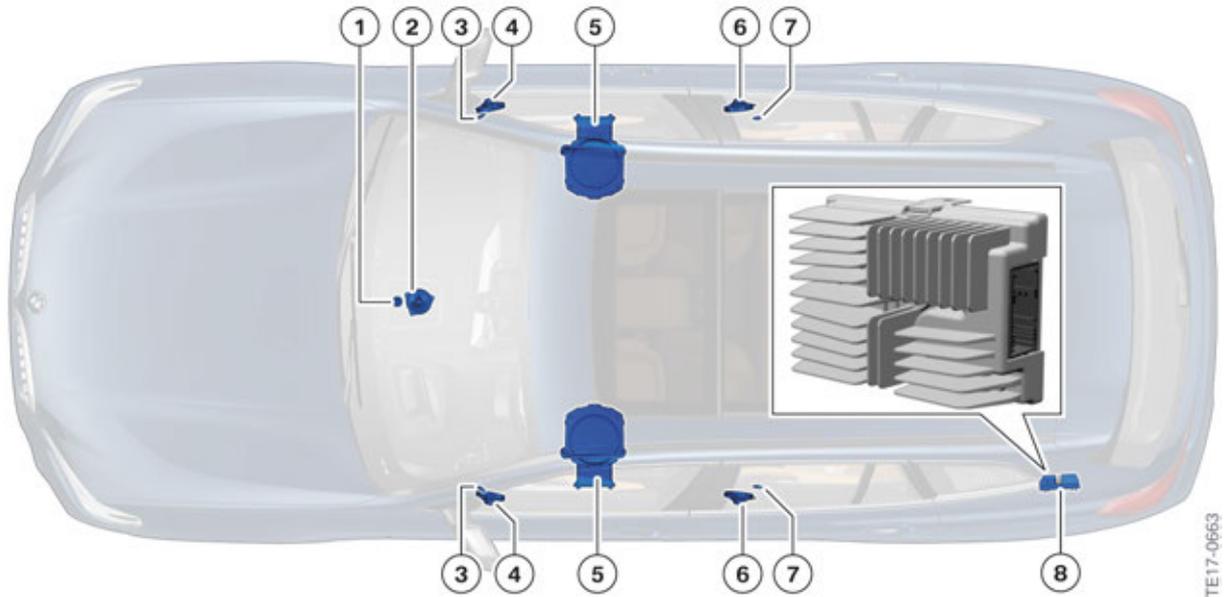
The HiFi system is composed of the following components:

- 5 tweeters
- 5 mid-range speakers
- 2 bass speakers
- Amplifier (no bus connection).

# G01 Infotainment

## 2. Speaker Systems

### 2.2.1. Component overview



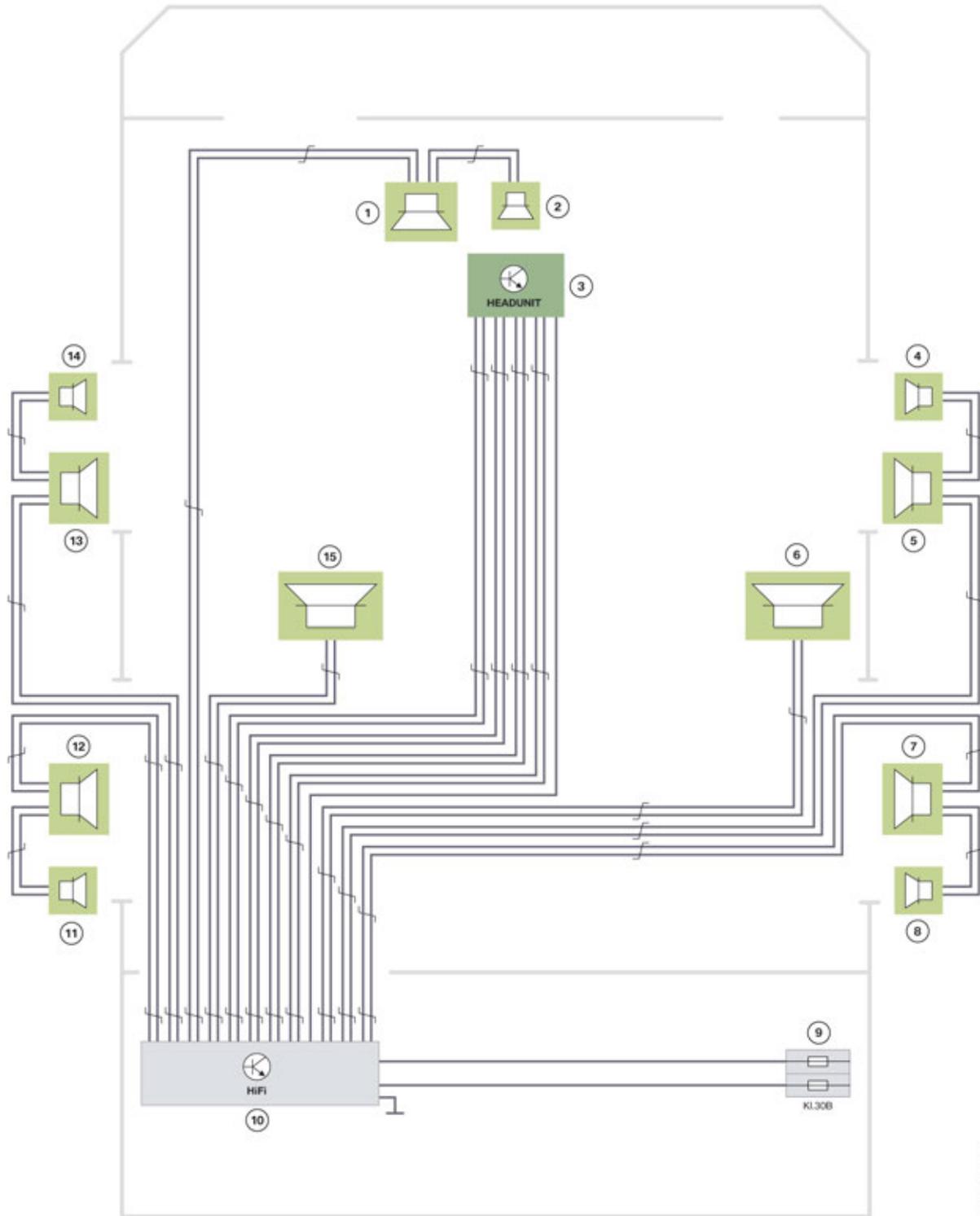
G01 HiFi sound system

Index	Explanation
1	Tweeter, front center
2	Mid-range speaker, front center
3	Tweeter, front
4	Mid-range speaker, front
5	Bass speakers
6	Mid-range speaker, rear
7	Tweeter, rear
8	HiFi amplifier

# G01 Infotainment

## 2. Speaker Systems

### 2.2.2. System wiring diagram



G01 HiFi system

TE17-0649

# G01 Infotainment

## 2. Speaker Systems

Index	Explanation
1	Mid-range speaker, front center
2	Tweeter, front center
3	Headunit
4	Body Domain Controller (BDC)
5	Tweeter, front right
6	Mid-range speaker, front right
7	Bass speaker, right
8	Mid-range speaker, rear right
9	Tweeter, rear right
10	Fuses, power distribution box, luggage compartment
11	HiFi amplifier
12	Tweeter, rear left
13	Mid-range speaker, rear left
14	Mid-range speaker, front left
15	Tweeter, front left
16	Bass speaker, left

### 2.3. Harman Kardon Surround Sound system (OE 688)

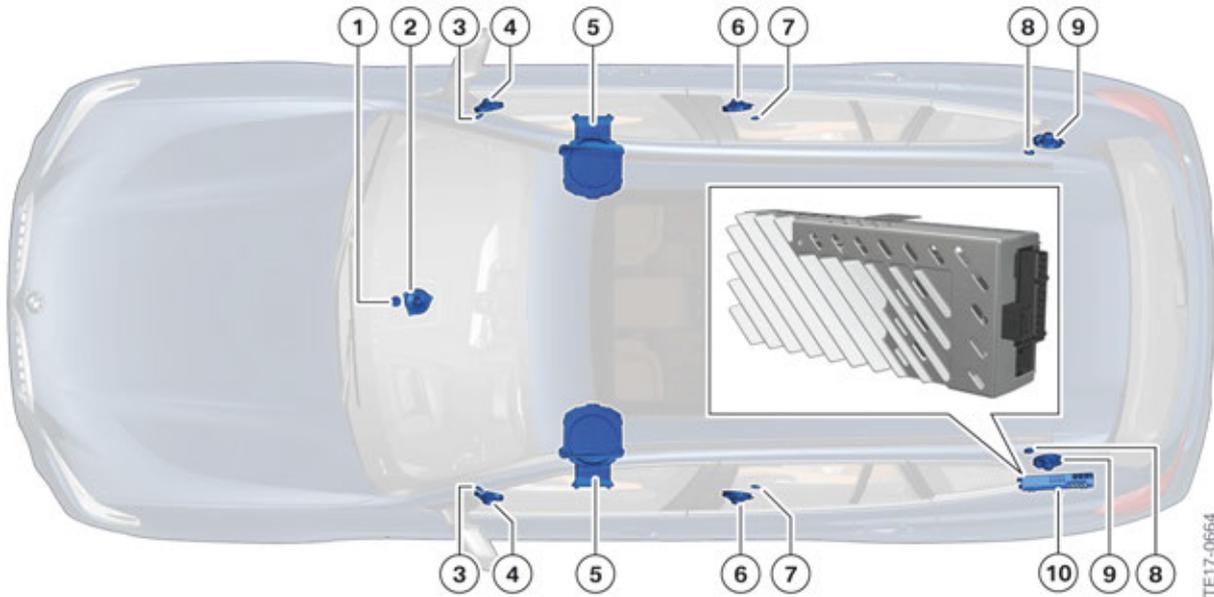
The Harman Kardon Surround Sound system is composed of the following components:

- 7 tweeters
- 7 mid-range speakers
- 2 bass speakers
- Amplifier (MOST bus connection).

# G01 Infotainment

## 2. Speaker Systems

### 2.3.1. Component overview



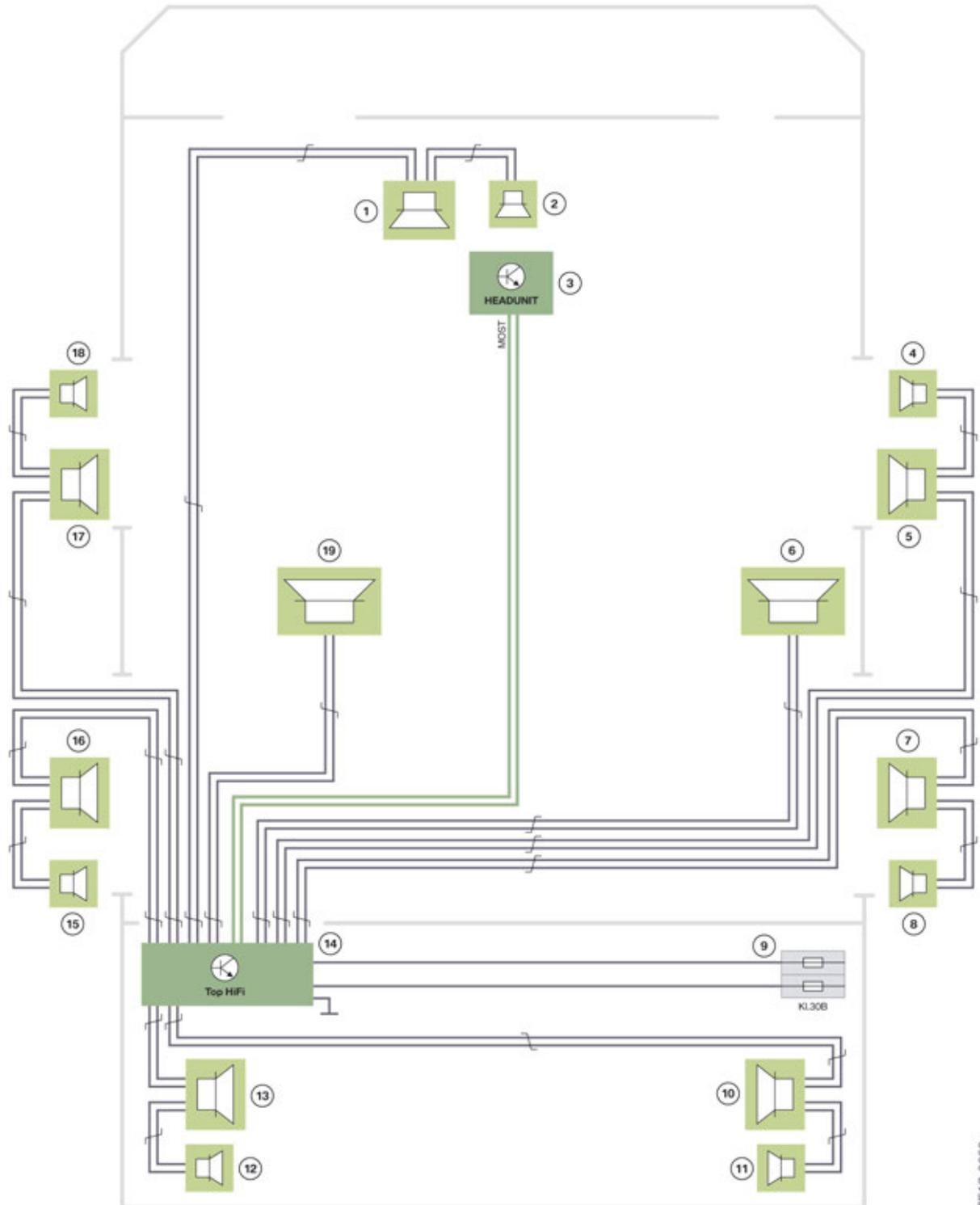
G01 Top HiFi system

Index	Explanation
1	Tweeter, front center
2	Mid-range speaker, front center
3	Tweeter, front
4	Mid-range speaker, front
5	Bass speakers
6	Mid-range speaker, rear
7	Tweeter, rear
8	Tweeter C-pillar
9	Mid-range speaker C-pillar
10	Amplifier Top HiFi system

# G01 Infotainment

## 2. Speaker Systems

### 2.3.2. System wiring diagram



G01 Top HiFi system

TE17-0650

# G01 Infotainment

## 2. Speaker Systems

<b>Index</b>	<b>Explanation</b>
1	Mid-range speaker, front center
2	Tweeter, front center
3	Headunit
4	Tweeter, front right
5	Mid-range speaker, front right
6	Bass speaker, right
7	Mid-range speaker, rear right
8	Tweeter, rear right
9	Fuses, power distribution box, luggage compartment
10	Mid-range speaker, rear window shelf, right
11	Tweeter, rear window shelf, right
12	Tweeter, rear window shelf, left
13	Mid-range speaker, storage shelf on left
14	Top HiFi amplifier AMPT
15	Tweeter, rear left
16	Mid-range speaker, rear left
17	Mid-range speaker, front left
18	Tweeter, front left
19	Bass speaker, left

# G01 Infotainment

## 3. Headunit

### 3.1. Headunit Basic 2

A Central Information Display (CID) **without** touch screen with an 8.8" screen is installed in connection with the Headunit Basic 2. Likewise, the controller **does not have** a touch pad.

#### 3.1.1. CD player

The HU-B2 includes a USB interface. The CD drive is already included as standard equipment.

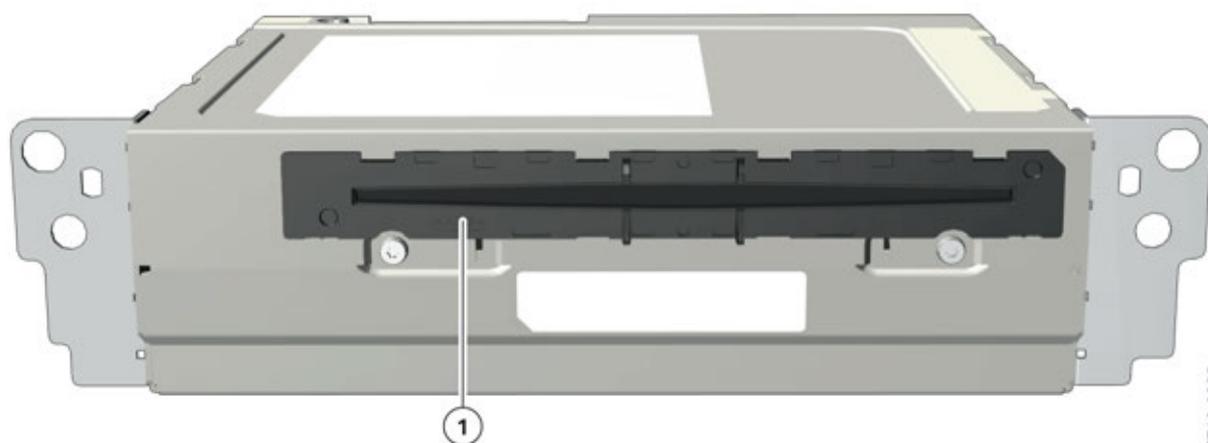


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Playback of MP3 CDs is not possible. It is only possible to listen to audio CDs.

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#### 3.1.2. Front view



Front view Headunit Basic 2 (HU-B2)

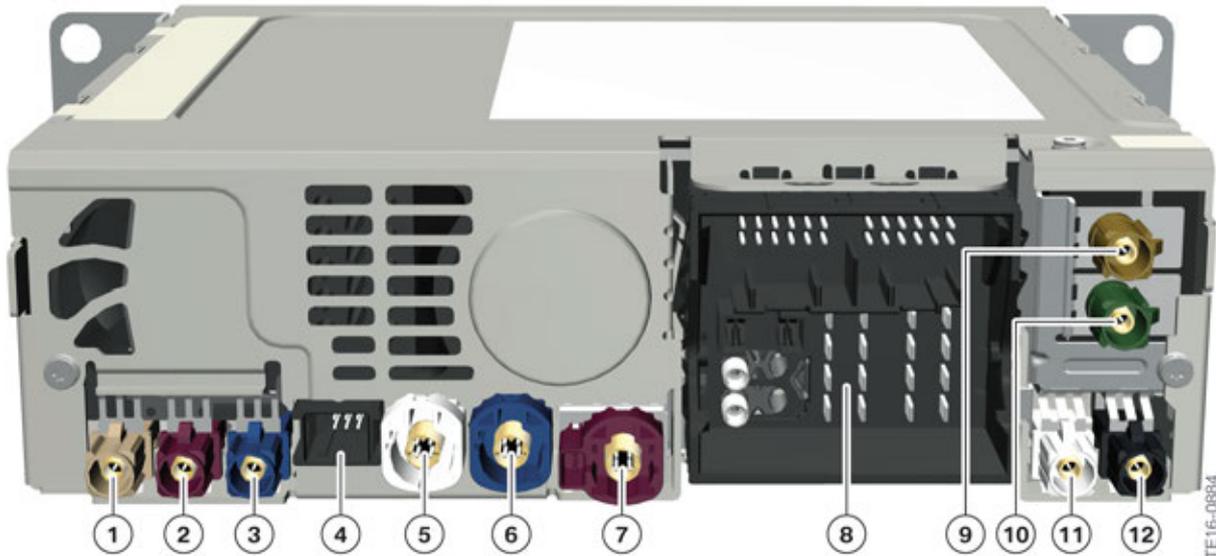
Index	Explanation
1	CD drive

# G01 Infotainment

## 3. Headunit

### 3.1.3. Rear view

The following graphic shows the connections of the HU-B2:



G01 rear view of Headunit Basic 2 HU-B2

Index	Explanation
1	Bluetooth antenna
2	Vehicle WLAN antenna
3	GPS antenna (only in vehicles without a Telematic Communication Box 2 (TCB2))
4	OABR Ethernet
5	USB port to the USB interface or to the USB hub
6	Not assigned
7	APIX connection to the Central Information Display (CID)
8	Main connector
9	SDARS antenna
10	Not assigned
11	FM2 antenna
12	FM1/AM antenna

# G01 Infotainment

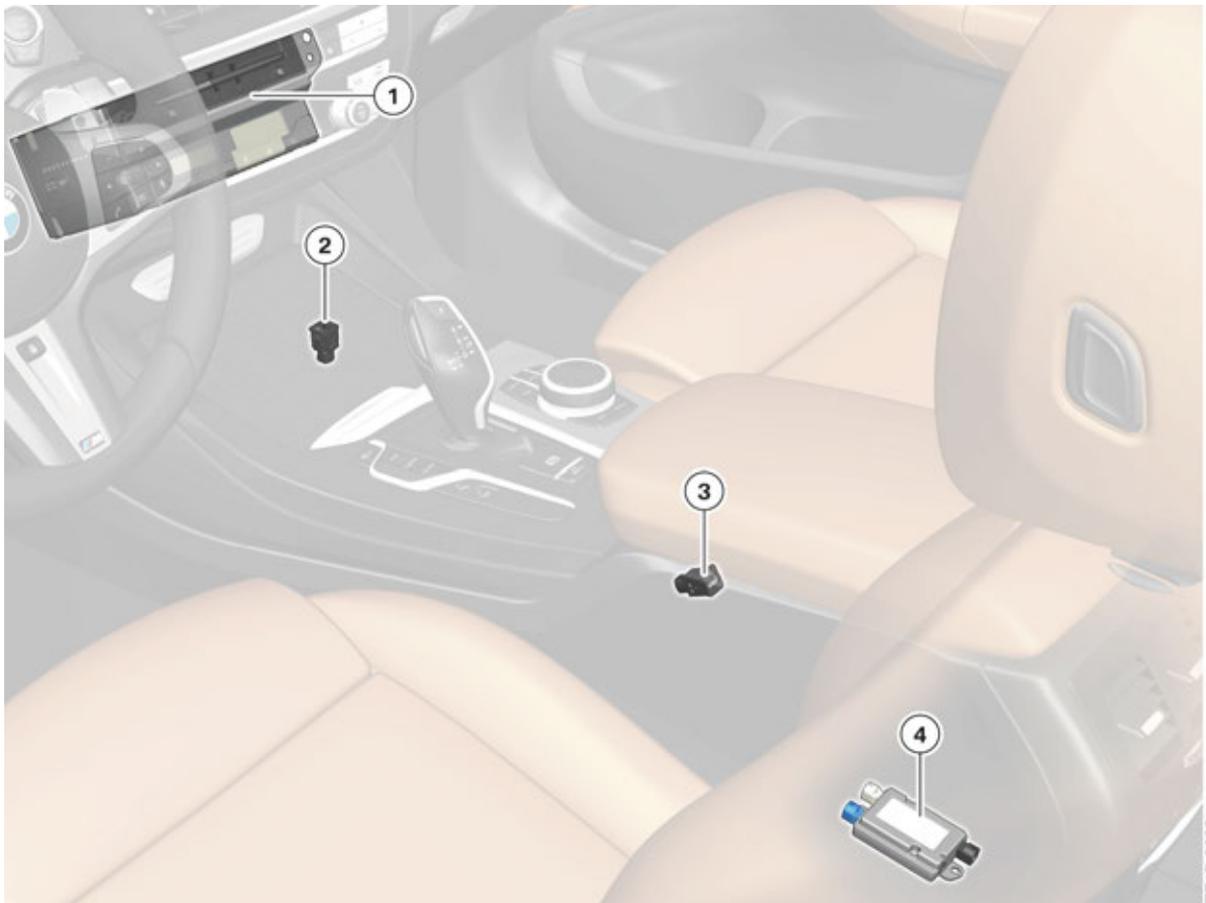
## 3. Headunit

### 3.1.4. Audio formats

The following audio formats can be played back by the HU-B2 via the USB interface:

- AAC
- MP3
- WMA
- FLAC

FLAC stands for Free Lossless Audio Codes. FLAC is a lossless audio format, which has the sound quality of an audio CD.



G01 USB interfaces

Index	Explanation
1	Headunit
2	USB interface, front center console
3	USB interface in the center console
4	USB hub

# G01 Infotainment

## 3. Headunit

### 3.1.5. Differences between Headunit Basic 2/Headunit High 2

The following functions can only be performed in conjunction with a Professional navigation system (OE 609):

- DVD playback
- Music collection
- Album cover display
- Video playback via USB
- Online entertainment

# G01 Infotainment

## 4. Antennas

### 4.1. Overview

The following graphic gives you an overview of the antenna system of the G01. The rear window of the G01 does **not** have an integrated antenna.



G01 overview of antenna system

Index	Explanation
1	Interference suppression filter
2	Roof-mount antenna (GPS antenna and TEL1- and TEL2 antenna and SDARS)
3	Wave trap
4	Defroster grid
5	FM2 antenna
6	Additional brake light
7	Antenna diversity module
8	AM/FM1 antenna

# G01 Infotainment

## 4. Antennas

### 4.2. Component overview

#### 4.2.1. Vehicle WLAN antenna



G01 Vehicle WLAN antenna

Index	Explanation
1	Vehicle WLAN antenna

# G01 Infotainment

## 4. Antennas

### 4.2.2. Bluetooth antenna



G01 Bluetooth antenna

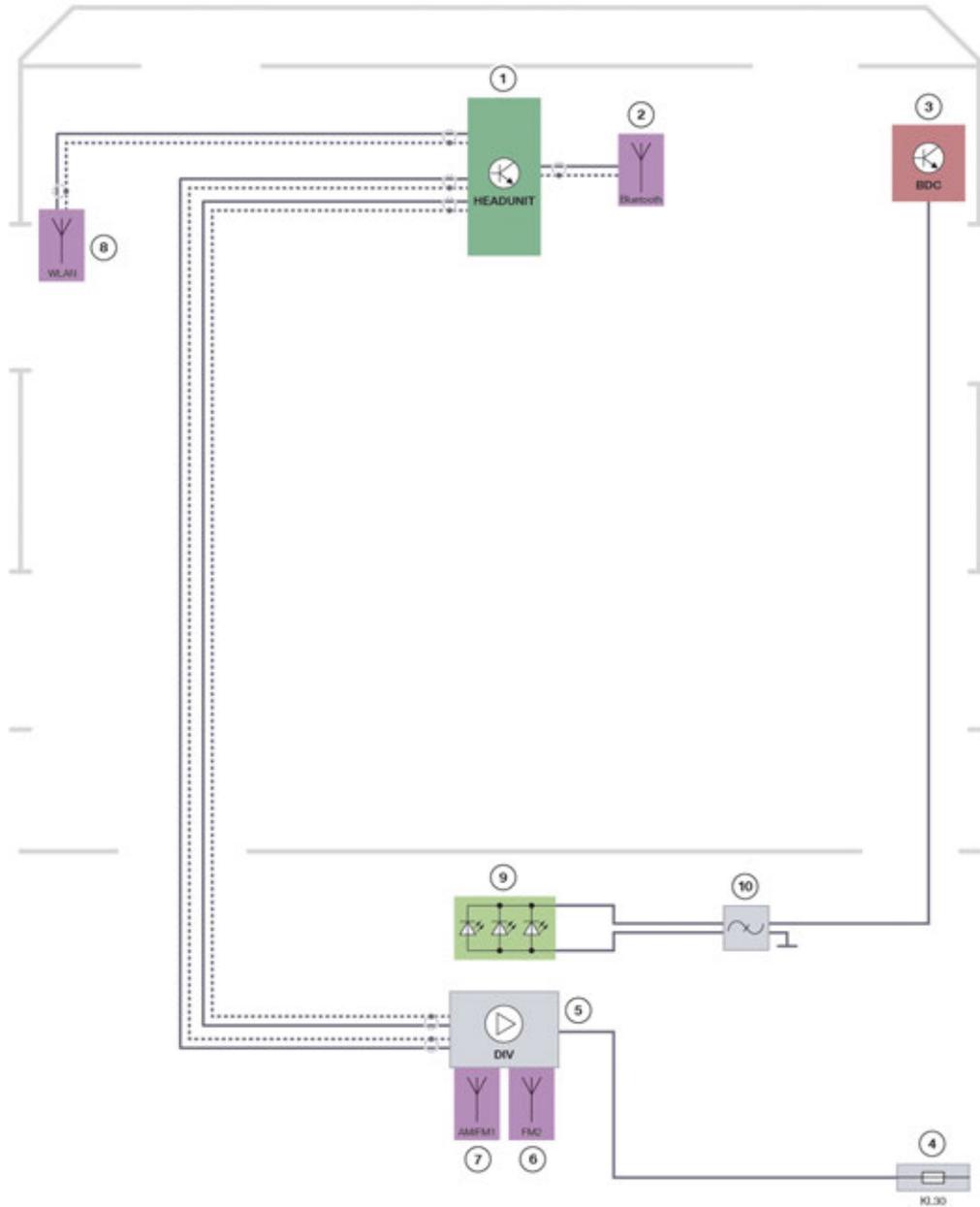
Index	Explanation
1	Bluetooth antenna

# G01 Infotainment

## 4. Antennas

### 4.3. System wiring diagram

#### 4.3.1. Multimedia



# G01 Infotainment

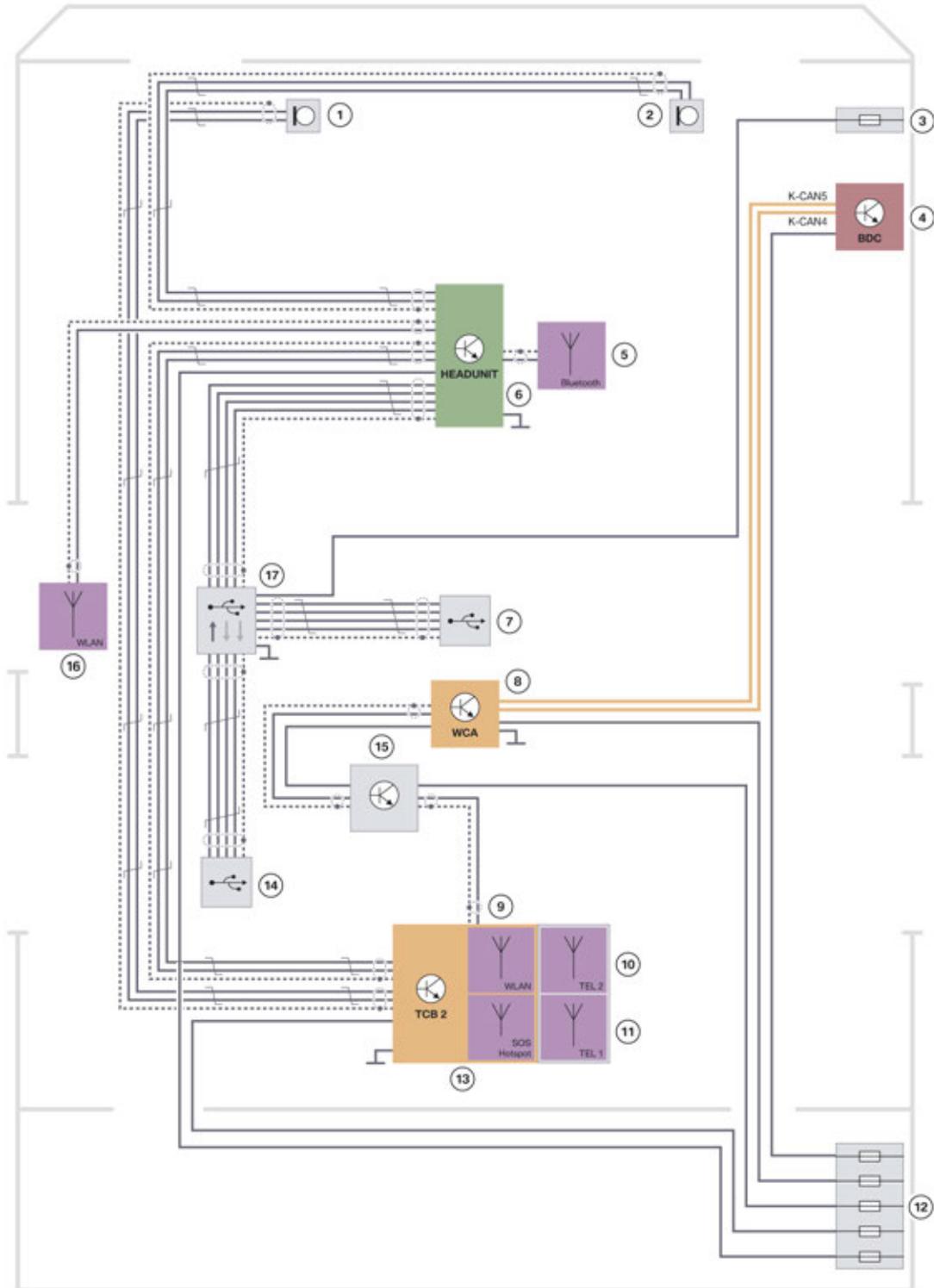
## 4. Antennas

<b>Index</b>	<b>Explanation</b>
1	Headunit
2	Bluetooth antenna
3	Body Domain Controller (BDC)
4	Luggage compartment power distribution box fuse
5	Antenna diversity module
6	FM2 antenna
7	AM/FM1 antenna
8	Vehicle WLAN antenna
9	Additional brake light
10	Interference suppression filter

# G01 Infotainment

## 4. Antennas

### 4.3.2. Telematics



TE17-0652

G01 Telematics antenna

# G01 Infotainment

## 4. Antennas

Index	Explanation
1	Microphone, driver's side
2	Passenger's side microphone (in conjunction with convenient telephony with enhanced smartphone connection.)
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	WLAN hotspot antenna
10	TEL2 antenna (telematics)
11	TEL1 antenna (customer's mobile telephone connection)
12	Fuses in the power distribution box of the luggage compartment
13	Telematic Communication Box 2 (TCB2) including emergency GSM antenna
14	USB interface, front center console below the center armrest
15	LTE line compensator
16	Vehicle WLAN antenna
17	USB hub

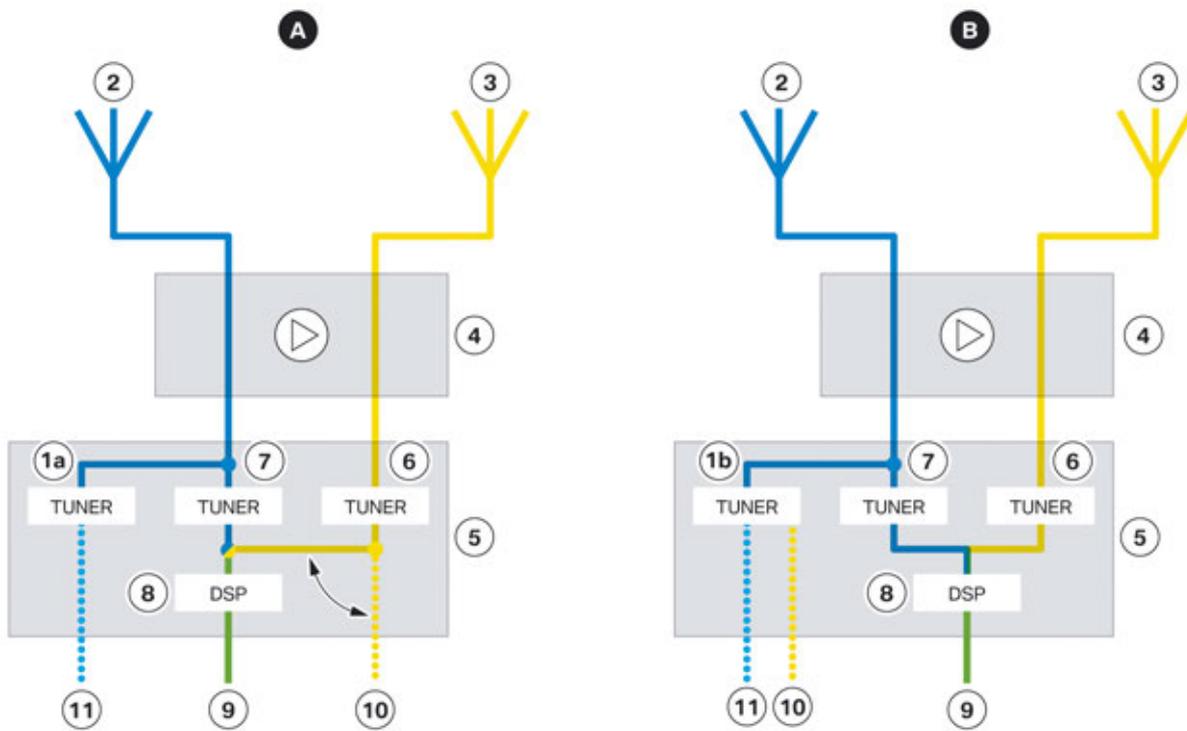
### 4.4. Phase diversity

The phase antenna diversity of a Headunit Basic used one of the two tuners to update the list of stations. For this short period in which the station list was being updated, only one tuner was available for reception of the current station. The phase antenna diversity in the Headunit Basic 2 features a revised tuner.

The revised tuner is responsible for the station list and for TMC messages, depending on the equipment. Thus, 2 tuners can now be used permanently for the audio playback.

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## 4. Antennas



TE16-1902

Comparison of phase diversity

Index	Explanation
A	Headunit Basic
B	Headunit Basic 2
1a	TMC tuner (only in vehicles with a navigation system)
1b	Additional tuner for station list update (additionally responsible for TMC messages in vehicles with a navigation system)
2	FM antenna 1
3	FM antenna 2
4	Antenna amplifier
5	Headunit
6	Connection, FM tuner 1
7	Connection, FM tuner 2
8	Digital Signal Processor (DSP)
9	Audio signal, radio
10	Signal, station list update
11	Signal, TMC messages update (only in vehicles with a navigation system)





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