# Technical training.

**Product information.** 

# **G30 Telephone and Telematics**



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.

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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.

Information status: September 2016

Technical training.

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## 1. Introduction

### 1.1. New features in the G30

The G30 builds on the technology introduced in the 7 Series (G12). This Training manual describes the new features or changes with regard to the G12.

The table below lists the new features and changes in the G30 compared to the G12:

Function/component	New feature/change
Apps	Apple® CarPlay
Dane Milita	BMW Connected app
	360° Remote View
Telephone systems	<ul> <li>No telephone systems require a base plate</li> </ul>
	New wireless charging station location

### 1.2. Further information

The functions in the G30, to a great extent build on those of the G12, the following table provides a more in-depth overview:

Function	Training Reference Manual
Apple® CarPlay	ST1610 Infotainment 2016
WiFi hotspot	ST1501 G12 Telephone Systems
Wireless charging of smartphones	ST1501 G12 Telephone Systems

## 2. BMW Apps

### 2.1. BMW Connected app

#### 2.1.1. Introduction

The BMW Connected app combines all the apps previously provided by BMW into one common app.

It replaces the following current apps:

- My BMW Remote app
- BMW i Remote app
- BMW Remote App (G12)
- BMW Connected Classic App (previously: BMW Connected app)

The BMW Connected app is initially only available for the iPhone®. A version for Android® smartphones will follow shortly.

The previous individual BMW apps will be replaced by the BMW Connected app from October 2016.

#### 2.1.2. Overview

The BMW Connected app is illustrated in this product information in conjunction with a BMW i3 so as to be able to show more of the app's content.

#### Main screen

One or more vehicles are assigned to the BMW Connected app by way of a registration process. A vehicle can be registered either through the ConnectedDrive portal or directly via the BMW Connected app.

The graphic below shows the main screen of the BMW Connected app once a vehicle has been assigned.

# 2. BMW Apps



G30 BMW Connected overview

Index	Explanation
1	Vehicle status and Remote Services
2	Current position of the smartphone and the vehicle and display of scheduled trips.
3	Scheduled trips (imported from calendar, Apple® maps, Google® maps, other apps (Yelp®) or from the Destinations menu for which a departure time has been saved)
4	Trips that are saved for a later date (from the Destinations menu, with no fixed departure time)
5	"Next trips" menu
6	Destinations menu (contains POIs, frequently and recently used destinations and points 1-4)
7	More menu (further information, settings, profile and feedback area)

# 2. BMW Apps

The location of the vehicle and the smartphone is shown in the map section. The location services must be activated in the vehicle and in the BMW Connected app for this view. The scheduled destinations are also marked on the map.





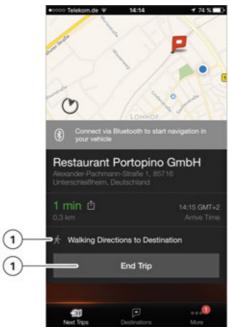
BMW Connected app location services

Index	Explanation
1	Current position of smartphone
2	Current position of vehicle

# 2. BMW Apps

### **Door-to-door-navigation**

Route guidance can be continued after the car has been parked. This is done using walking directions. The Door-to-door navigation menu is selected by clicking on the map section. Walking directions can then be launched in the map from the current location to the final destination.





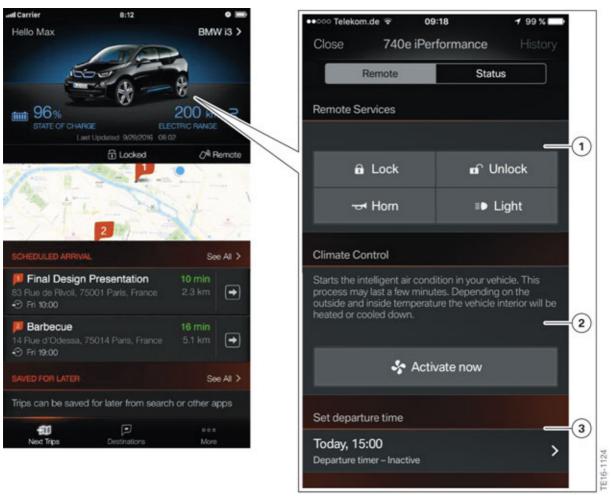
BMW Connected app walking directions

Index	Explanation
1	Walking directions to the destination
2	End trip

# 2. BMW Apps

#### **Remote Services**

Remote Services has been imported unchanged into the BMW Connected app from the previous BMW Remote apps. Remote Services can be accessed by clicking on the vehicle icon in the main screen.



#### G30 BMW Connected Remote

Index	Explanation
1	Remote Services (lock/unlock vehicle, horn, light)
2	Climate control
3	Set departure time

# 2. BMW Apps

#### **Status**

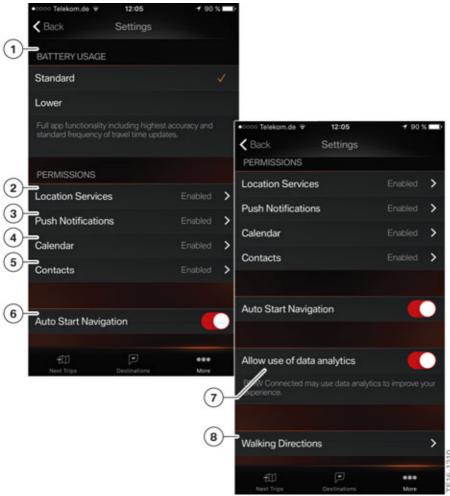
The Status menu displays the current information from the service data.



BMW Connected Status

# 2. BMW Apps

#### Settings menu



BMW Connected app settings

Index	Explanation
1	Battery usage (lower battery used, but rarely updated)
2	Activation of location services (required for full use of the functions)
3	Activation of push notifications (e.g. departure time)
4	Access to calendar (sharing events with BMW Connected)
5	Access to contacts
6	Automatic start of navigation in the vehicle as soon as the smartphone is connected via Bluetooth or cable
7	Permit use of data analytics
8	Selection of Apple® or Google® maps for walking directions

## 2. BMW Apps

### 2.1.3. Schedule trips

Destinations can be scheduled via the BMW Connected app. Two options are available for this:

### Schedule trips in the BMW Connected app

Trips can be scheduled in the BMW Connected app. An arrival time can be specified for the destinations. The BMW Connected app calculates the optimum departure time from current traffic data; you will receive a notification message 10 minutes before this time.



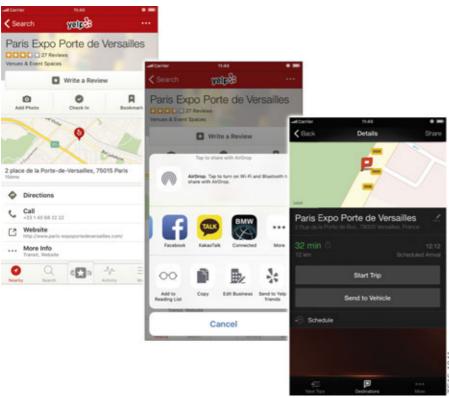
BMW Connected app setting the departure time

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# 2. BMW Apps

### Share destinations via other apps

Destinations can also be searched for in other apps such as Apple® Maps, Google® Maps or Yelp® and shared with BMW Connected.



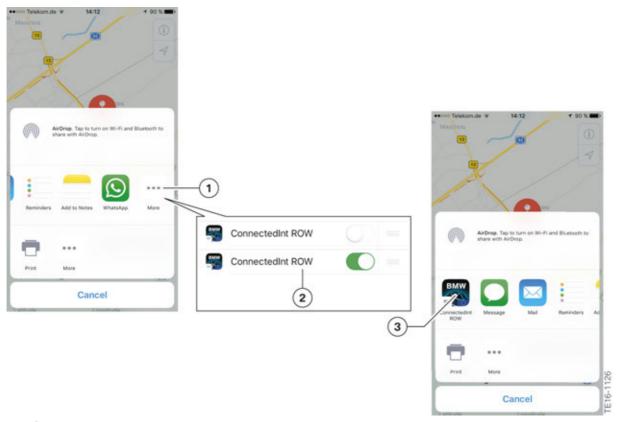
BMW Connected app selecting a destination on Apple® maps

The current traffic volume for the scheduled destination is displayed in the BMW Connected app by color:

- · Green: no traffic on the scheduled route
- Yellow: traffic on the scheduled route
- Red: heavy traffic volumes on the scheduled route

# 2. BMW Apps

Sharing must first be enabled for this function.



BMW Connected enable sharing

Index	Explanation
1	Share menu in the smartphone, here in Apple® maps by way of example; add BMW Connected once by touching More
2	Activating the BMW Connected app
3	Sharing via the BMW Connected app is possible

#### Transferring the destination to the vehicle

A destination planned on the smartphone can be sent to the vehicle's navigation system. Two options are available for this:

- Bluetooth
- BMW Connected Send to Car

The destination can be sent to the navigation system if the smartphone is coupled via Bluetooth in the vehicle.

## 2. BMW Apps

The destination can also be sent to the vehicle via ConnectedDrive online. The route guidance will then be suggested in the vehicle where it can be accepted. In this example we illustrate this on the user interface of a G12.



BMW Connected accept sent trip

Index	Explanation
1	Main menu
2	BMW messages
3	Select destination
4	Start route guidance

# 2. BMW Apps

#### Third party apps

The BMW Apps menu lists all third-party apps that are currently supported by BMW. These apps can be launched from the individual menus as before, or from the ConnectedDrive menu if they are installed on the smartphone.



BMW Connected app third-party apps

## 2. BMW Apps

### 2.1.4. Remote 3D View

Remote 3D View is provided for the first time on the G30. This function allows the customer to view the area around his parked vehicle on his smartphone.



G30 Remote View 3D display on smartphone

#### **Service**

Below we list some information about BMW Remote 3D View which affects the service:

- A maximum of three recordings in two hours is permitted. (The user will receive a message in the event of a further recording.)
- The Remote 3D View function is an element of standard equipment "Remote Services" (OE 6AP) and is valid for four years. Once this period has expired, the function can be extended via the ConnectedDrive Store for a fee.
- The vehicle shown in the smartphone is always shown in silver paintwork.

#### **Further information**

Further information on BMW Remote 3D View can be found in the ST1604 G30 Driver Assistance Systems Training Reference manual.

## 2. BMW Apps

#### 2.2. Wireless connection

A base plate is no longer provided for any telephone system in the G30. For this reason, the telephone is connected to the head unit either wireless or through a USB port.

A check mark must be set for Apps if these are to be used in the vehicle via Bluetooth when the smartphone is coupled in the vehicle.



G30 selecting Apps in the Central Information Display

Apps installed on the smartphone and approved by BMW (including BMW Connected) are selected in the vehicle as previously.



G30 Selecting apps

## 3. Apple® CarPlay Preparation

### 3.1. Introduction

Apple® CarPlay offers the capability of easily and conveniently reproducing selected content from the iPhone® in the vehicle. Displaying the Apple® icons on the Central Information Display (CID) permits intuitive operation and control of the functions.



G30 Apple® CarPlay in the Central Information Display (CID)

Index	Explanation
1	Main screen with Apple® CarPlay
2	Assistance window, here, for example, shown with the BMW navigation map

Apple® CarPlay is displayed only in the main screen. The Apple® CarPlay logo is displayed if there is no function in the assistance window. Apple® CarPlay is activated by pressing and holding the menu button on the controller.

## 3. Apple® CarPlay Preparation

### 3.2. Prerequisites

The vehicle and the iPhone® must satisfy certain prerequisites before Apple® CarPlay can be used.

### 3.2.1. iPhone®

The Apple® CarPlay function runs on the iPhone® 5 and more recent models.

The iPhone operating system must be at least iOS 9.3.3.

Other Apple® devices (iPad® or iPod®) cannot be connected to the vehicle via Apple® CarPlay.

#### 3.2.2. Vehicle

The Apple® CarPlay preparation optional equipment (OE 6CP) is added to the BMW Online and BMW Apps standard equipment (OE 6AK) and the standard equipment Professional navigation system (OE 609). Selected data attributes are swapped between the smartphone and the vehicle when Apple® CarPlay is used.

Further information about Apple® CarPlay may be found in the ST1610 Infotainment 2016 Product Information.

### 4. Telephone Systems

### 4.1. Equipment

The G30 has two different hands-free mode and charging variants for telephones:

- Convenient telephone with extended smartphone connection (OE 6NS) (standard equipment)
- Telephone with wireless charging (OE 6NW) (optional equipment)

### 4.1.1. Convenient telephone with extended smartphone connection

**No** base plate is fitted for the convenient telephone with extended smartphone connection optional equipment. With this equipment it is therefore also not possible to charge a mobile phone through a snap-in adapter. Nor is connection to the roof-mounted antenna possible any longer with this optional equipment.

Convenient telephone with extended smartphone connection is only offered in countries in which the telephone system with wireless charging optional equipment is not available.

#### Differences over a hands-free system with USB interface

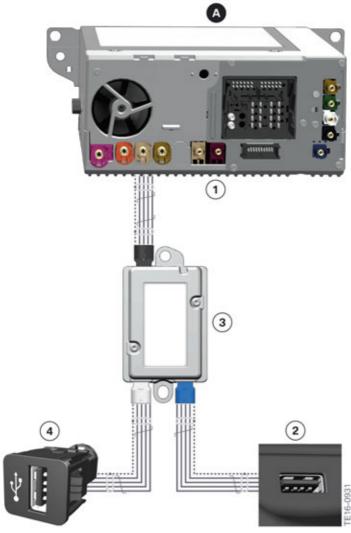
The list below shows the convenient telephone with extended smartphone connection:

- A microphone on the drivers and passenger's side for improved voice quality.
- Two USB interfaces each with 2.1 A charge current.
- WiFi Hotspot optional equipment (OE 6WD) can be added.
- Possible to play videos via USB.
- Coupling of 2 mobile phones and an audio device simultaneously.

# 4. Telephone Systems

### **USB** interface

The following graphic provides an overview of the connections for the USB interface:



G30 Connection of USB interface to the head unit

Index	Explanation
A	USB interface for the convenient telephone with extended smartphone connection (OE 6NS) (standard equipment) or telephone system with wireless charging (OE 6NW) (optional equipment), two USB interfaces each with 2.1 A charge current
1	Headunit High 2 (HU-H2)
2	USB interface, center console front
3	USB hub
4	USB interface in the center console under the center armrest

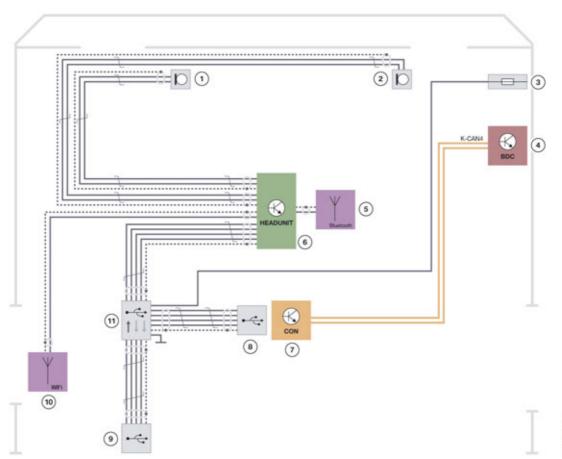
The additional USB interface is installed in the center console under the center armrest.

# 4. Telephone Systems



G30 USB interface center console

### System wiring diagram



 ${\it G30 \, System \, wiring \, diagram \, for \, convenient \, telephone \, with \, extended \, smartphone \, connection}$ 

## 4. Telephone Systems

Index	Explanation
1	Microphone, left
2	Microphone, right
3	Fuse for front right power distribution box
4	Body Domain Controller (BDC)
5	Bluetooth antenna
6	Headunit High 2 (HU-H2)
7	Controller (CON)
8	USB interface, center console front
9	USB interface in the center console under the center armrest
10	WiFi antenna for vehicle (WiFi)
11	USB hub

### 4.1.2. Telephone with wireless charging

Telephone with wireless charging (OE 6NW) has the same functions as the convenient telephone with extended smartphone connection. Additionally, the smartphone can be charged wirelessly and has a connection to the roof-mounted antenna.

Mobile phones must be compatible with wireless charging for this feature to operate.

#### **Charge station**

The wireless charging station is located in the front of the center console below the IHKA control panel. The wireless charging function and the connection to the roof-mounted antenna are identical to those for a wireless charging station under the center armrest (G12). If equipped, wireless charging of the BMW display key is also possible.

# 4. Telephone Systems



BMW Display key

The display key is only available as an option in the 540i / 540i xDrive and M550i xDrive G30 vehicles.



G30 Wireless charging station in the front center console

# 4. Telephone Systems

The smartphone must be placed on the wireless charging station. The charging status LED is in the tray.

### **LED** display

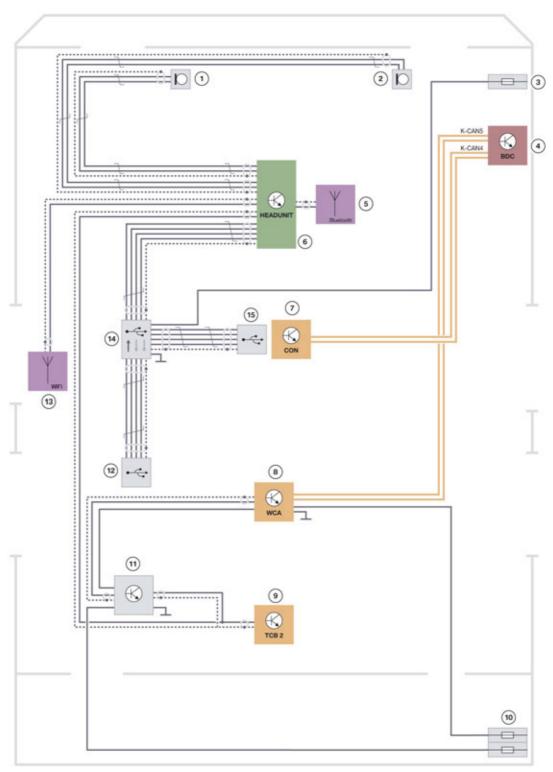


G30 Wireless charging station LED

Index	Explanation
1	Area in which the smartphone should be placed
2	Charging status LED
3	Blue LED: Charging (QI® compatible mobile phone & BMW display key)
4	Orange LED: Shutdown because of excess temperature (60°C / 140°F)
5	Red LED: Internal fault

# 4. Telephone Systems

### System wiring diagram



G30 Telephone with wireless charging system wiring diagram

# 4. Telephone Systems

Index	Explanation
1	Microphone, left
2	Microphone, right
3	Fuse for front right power distribution box
4	Body Domain Controller (BDC)
5	Bluetooth antenna
6	Headunit High 2 (HU-H2)
7	Controller (CON)
8	Wireless charging station (WCA)
9	Telematic Communication Box 2 (TCB2)
10	Fuses in the power distribution box of the luggage compartment
11	LTE compensator
12	USB interface in the center console under the center armrest
13	WiFi antenna for vehicle (WiFi)
14	USB hub
15	USB interface, center console front

## 4. Telephone Systems

### 4.2. WiFi hotspot



G30 WiFi hotspot

The BMW Internet optional equipment (OE 6AR) is no longer offered in the G30.

The WiFi hotspot (OE 6WD) provides the capability of using the internet in the vehicle.

The hotspot in the vehicle can be used for a fee once registered. The WiFi antenna is installed in the TCB2.

#### 4.2.1. Provider

AT&T currently supports the hotspot for BMW.

## 4. Telephone Systems

#### 4.2.2. WiFi antenna

The WiFi antenna for the WiFi hotspot is built into the TCB2. The two telephone antennas in the roof-mounted antenna are used for transmitting and receiving via LTE.



G30 Telematic Communication Box 2 (TCB2)

#### 4.2.3. Selection

The following graphic shows how to select the hotspot from the menu.



G30 Selecting the WiFi hotspot



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