


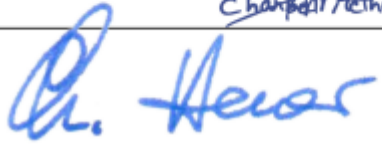
Funktion Function	Abteilung Department	Name / Unterschrift Name/ Signature	Datum Date
Entwicklung / erstellt Development / created	Christian Bamberg Charbel Melhem	 Christian Melhem	13.03.2019
Verantwortlich / genehmigt Responsible/ approved	Christian Heuer	i.V. 	13.03.2019

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1 Target of document

This document designed to help getting started with the Car Sharing Module CSM4. It gives users the required information in order to prepare and use this module. In addition, it spreads out its different usages and functionalities as well as features.

Please read this manual with attention, as it contains critical information.

2 Target Group

The target group of this user manual are BMW cars clients and any user who wants to use a BMW car containing the CSM4 module.

For more information, please refer to the BMW User Manual included in BMW cars or online at www.bmw.com

3 Revision History

Revision	Date	Description	Name / Function
1.0	12.03.2019	Document created	Charbel Melhem
2.0	13.03.2019	Document reviewed and approved	Charbel Melhem Christian Heuer

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4 Before you start

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference
- (2) This device must accept any interference, including interference that may cause undesired operation of the device..

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes:(1) Cet appareil ne doit pas causer d'interférences(2) Cet appareil doit accepter toutes les interférences, y compris celles susceptibles de provoquer un fonctionnement indésirable de l'appareil.

This device is designed to be used that radiating structures are 20 cm outside of the body of the user (r=20 cm).

Cet appareil est conçu pour être utilisé avec des structures rayonnantes situées à 20 cm du corps de l'utilisateur (r = 20 cm).

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5 WARNING

- Do not attempt to install or service this product by yourself. Installation or servicing of this product by persons without training and experience in electronic equipment and automotive accessories may be dangerous and could expose you to the risk of electric shock, injury or other hazards.
- Do not attempt to operate the unit while driving. Make sure to pull off the road and park your vehicle in a safe location before attempting to use the controls on the device.

CAUTION: USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. CAUTION: THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

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6 CAUTION

- Do not allow this unit to come into contact with moisture and/or liquids. Electrical shock could result. In addition, damage to this unit, smoke, and overheating could result from contact with liquids.
- This product is evaluated in moderate and tropical climate condition under the Audio, video and similar electronic apparatus
- Safety Requirements EN 60950
- Safety Requirements EN 62368

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7 Getting Started

7.1 Product

7.2 Product Description

The Car Sharing Module CSM4 is used as a built-in module in BMW cars, which will be shared between different clients from around the world.

Rental cars need to be shared fluently and in an easy way for short period. This module is in combination with the BMW App (for Android and Apple iPhone Devices) the solution for that problem. By using the App, it is possible to book the car. The CSM4 device is used simultaneously as a switch for different devices via Automotive Ethernet.

Also "Low Energy Bluetooth" (BLE) is available to connect to the car. The used software can change ways using the CSM4, which means that the ECU is not restricting the connection.

7.3 Product Features

- Bluetooth Low Energy (BLE) 5.0 and lower
- Compact product
- Integrated in car and acts as CAN ECU

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7.4 System Access

The system has three access modes:

- Remote access

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- Bluetooth access

The CSM4 compares the VIN from the remote command with the vehicle VIN.

If the VIN's are different, the remote command is discarded.

7.5 Product Specifications

General

- Power source: 12V DC
- Grounding system: Negative type
- Maximum current consumption: 200mA
- Operating Temperature: -40°C to +85°C
- Dimensions (W x H x D): 110 x 85 x 30mm
- Weight: 200g
- Bluetooth Version: Bluetooth 5.0 certified
- BLE Range: 10 m range around the car on free space.
- Maximum Power Consumption: 2.4 Watt
- BLE Output Maximum power: 5dBm

7.6 Safety Rules

This section defines the requirements imposed on operating safety and safety with respect to external factors, which are implemented within the CSM4 module.

Defined crash accelerations will result in mechanical deformation. All development objects are crash resistant.

The CSM4 is protected against unauthorized manipulation.

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7.7 Proper installation

While installing the CSM4 module in the car, make sure the male and female headers are facing each other's, the cables are compact and the CSM4 module is fixed in its right place.

7.8 Preparation before operation

When you run the CSM4 module for the first time, make sure to connect it to battery voltage (12V), the cables are compact and the CSM4 module is fixed.

7.9 Bluetooth Connection

To communicate to the CSM4 using BLE, you need first to install the required BMW mobile application. To download the BMW mobile App please refer to the Play Store of Android and the App-Store for Apple.

8 Maintenance

The module CSM4 is designed that full functional capability without maintenance for the required operating hours or for at least 15 years is ensured.

9 Packaging and Transport

Label of some countries should be printed on CSM4 package. The Module CSM4 is packed into ESD Case.

10 Disposal and Recycling

CSM4 will be recycled by qualified workshops.

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11 Certifications

According to RED 2014/53/EU the following Norms are fulfilled:

EN 62479 (MPE assessment report)

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EN 60950 (safety)

EN 62368 (safety)

EN 62311 (MPE calculation)

EN 62479 (RF Exposure Evaluation).

EN 301489 (EMC)

EN 300328 (radio Bluetooth LE)

US Market:

is both UL/cUL and FCC certified for safety and reliability under the United States and Canadian standards. Unauthorized changes or modifications to this device may impair the user's ability to operate this device and will void the warranty. UL/cUL and FCC Notice to Users: Users are not permitted to make changes or modify this device or any of its companion products or components in any way. Changes or modifications are considered a safety hazard/risk and will void the warranty.