

ASAP



Operating Instructions

CARSHARING ZUSATZKARTENLESER

ASAP Electronics GmbH

Original instructions

Edition EN 2020/07

Safexpert Project Data:

Project designation: CARSHARING ZUSATZKARTENLESER ZKL
Project number: PRJ-2020-05-08-0001
Order:

Trade name: CARSHARING ZUSATZKARTENLESER
Product name: CARSHARING ZUSATZKARTENLESER
Serial number: from 1001
Machine number:
Model:
Type:

Manufacturer: ASAP Electronics GmbH

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1 Regarding this Operating Instructions

Before operating the CARSHARING ZUSATZKARTENLESER for the first time or if you are authorized with other tasks on the CARSHARING ZUSATZKARTENLESER, you have to read these Operating Instructions.

In particular, observe chapter 2 „General Safety Regulations“.

1.1 General

These instructions are intended to facilitate the familiarization process with CARSHARING ZUSATZKARTENLESER and utilizing its intended application capabilities.

The Operating Instructions contain important notes to operate the CARSHARING ZUSATZKARTENLESER safely and properly. Their observance helps in:

- Avoiding dangers
- Avoiding repair costs and breakdown times
- Increasing the reliability and life span of the product

These instructions must be read and applied by every person that is authorized with tasks on the CARSHARING ZUSATZKARTENLESER.

In addition to these Operating Instructions, the regulations concerning accident prevention and environmental protection applicable in the respective country of use and application site must be observed.

1.2 Signs and symbols used

These instructions use the following signs and symbols:

- Action symbol: Text following this sign describes instructions that have to be performed in the given order from top to bottom.
- ✓ Result symbol: Text following this sign describes the result of an action.

Note: Additional information

1.3 Design of warnings

Warning levels	Signal word	Used for ...	Possible consequences if the safety note is not being observed:
	DANGER	Personal injuries (imminent threat)	Death or serious injury!
	WARNING	Personal injuries (possible dangerous situation)	Death or serious injury!
	CAUTION	Personal injuries	Minor injuries!

Tab. 1.1 Warning levels

The warnings are designed as follows:

- Pictogram with signal word according to warning level
- Description of danger (type of danger)
- Description of consequences of the danger (effects of danger)
- Measures (activities) to prevent the danger



HAZARD!

Type of danger (text)

Effects of danger (text)

➤ Prevention of danger (text)

1.4 Technical terms and abbreviations used

Abbreviation	Meaning
ZKL	CARSHARING ZUSATZKARTENLESER
BLE	Bluetooth low energy
BT	Bluetooth
RFID	Radio frequency identification
PCB	Printed circuit board

Tab. 1.2 Abbreviations used

2 General Safety Regulations

2.1 Principles

The ZKL must only be operate in perfect technical condition.

2.2 Intended use

The ZKL enables to read card identification (IDs) numbers and broadcasting them via BLE to the vehicle.

2.3 Foreseeable misuse

- The card is pushed lengthways into the card slot(s)
- An undefined card is used
- Wrong battery type is used

2.4 Safety regulations

General notes

- Keep any kind of liquid away from the ZKL
- There are no parts inside the ZKL the user has to maintain

For assembly



CAUTION!

Hand injuries

- Assembly may only be carried out by the service technician
 - Be careful when assembling the housing (upper and lower shell).
-

For commissioning and during operation



CAUTION!

Lithium battery CR123A

- The CR123A lithium battery used inside the ZKL is not rechargeable.
 - Only the CR123A lithium battery type may be used
-

Structural changes

Structural changes (electrical / mechanical) are not permitted.

2.5 Measures in an emergency

Fire fighting

- In the event of a fire, the system must be extinguished with a CO2 fire extinguisher.

3 Scope of supply

- CARSHARING ZUSATZKARTENLESER
- Adhesive tapes
- Operating instructions

The battery CR123A is not part of the scope of supply!



Fig. 3.1 ZKL



Fig. 3.2 Adhesive tapes

4 Technical description

4.1 Overview

Function description

The ZKL will initiate the reading of the card identification (IDs) numbers, if the state of the card detections has changed. The state changes, when a card is inserted or removed.

The ZKL is sending a BLE broadcast periodically to the vehicle. The broadcast contains the manufacture specify data with the BLE MAC address of the module, the battery state and the card IDs of the detected cards.

There is only a unidirectional broadcast, not a bidirectional communication with the vehicle.

4.2 Card slots



Fig. 4.1 Card slots

4.3 Type label

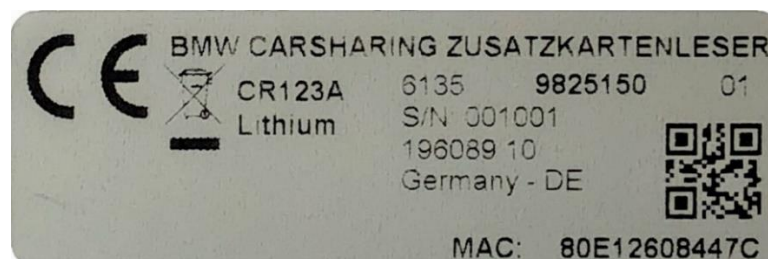


Fig. 4.2 Type label - CE marking

- 1st** BMW product name
- 2nd** Initial unit part group, 7-digit part number, change index
- 3rd** Serial number
- 4th** Supplier number, supplier plant code
- 5th** Country of origin, country code
- 6th** MAC address QR-Code
- 7th** MAC address plaint text
- 8th** Battery model code, battery type
- 9th** Recycling marking
- 10th** CE marking

5 Installation and commissioning

5.1 Commissioning

Following steps, only be carried out by the service technician.

- Push the locking clips inwards and lift the top shell lightly – [fig. 5.1](#)
- ✓ Housing is now open – [fig 5.2](#)
- Remove the upper shell
- Remove the PCB from the lower shell.
- Caution: do not damage the micro switches (PCB top & bottom)
- Insert the battery into the battery holder
- Insert the PCB into the lower shell
- Connect upper with lower shell and close the housing
- Glue the supplied adhesive tapes to the defined position on the lower shell of the ZKL – [fig 5.3](#)
- Fix the ZKL to the defined position in the vehicle



Fig. 5.1 Locking Clips



Fig. 5.2 Open housing



Fig. 5.3 Position adhesive tapes ZKL

6 Operating ZKL

6.1 ZKL - Modes

- No card is detected
- One card is detected
- Two cards are detected

6.2 Switching the ZKL on

- Look at [commissioning](#)

6.3 Switching the ZKL off

- Remove the battery

7 Help in case of faults

7.1 Procedures for faults or errors

- Check if an undefined card was used
- Check if card is in the slot up to the fixed stop

7.2 Fault and error messages

- Please contact service!

7.3 Removing faults

- Remove and insert the card again

If the fault or error message continues to occur, please contact service.

8 Decommissioning and disassembly

8.1 Disposal and recycling

Make sure that plastic sleeves, packaging, are recycled correctly. Do not just throw these materials away.

This product is subject to the European Directive 2012/19 / EU. Dispose of the product through an approved waste disposal company or at your local waste facility. Observe the regulations applicable in your country. If in doubt, contact your waste disposal facility.

9 Technical data

Designation		Value	Unit
Mass		0,096	kg
Max. operating temperature		70	°C
Min. operating temperature		-25	°C
Lithium battery (Power supply)	Model code	CR123A	
	Nominal voltage	3,0	V
	Nominal capacity	1400	mAh
Normal operation condition RFID and BT mode	Power consumption	0,033	W
Operating time without service		≥ 30	month
Acoustic output, dB(A)		N/A	

Tab. 9.1 Technical data

10 Appendix

10.1 Declaration of conformity

EU declaration of conformity

in accordance with the Low-Voltage Directive 2014/35/EU, Annex IV

Translation

Manufacturer	Representative within the EU
ASAP Electronics GmbH	ASAP Electronics GmbH
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The sole responsibility for issuing this declaration of conformity lies with the manufacturer.

Object of this declaration

Product / Article	CARSHARING ZUSATZKARTENLESER
Serial number	from 1001
Project number	PRJ-2020-05-08-0001
Commercial name	CARSHARING ZUSATZKARTENLESER
Model	
Batch number	
Description	The ZKL enables to read card identification (IDs) numbers and broadcasting them via BLE to the vehicle.

The object of the declaration described above meets the relevant harmonisation legislation of the European Union:

2011/65/EU	Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment Published in 2011/L 174/88 of 01.07.2011
2014/53/EU	Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC Published in L 153/62 of 22.05.2014

Applied harmonised standards:

EN ISO 12100:2010-11	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)
ÖVE/ÖNORM EN 301489-1 V2.2.3:2020-01-01	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; -- Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility (ETSI EN 301 489-1 V2.2.3 (2019-11))
ÖVE/ÖNORM EN 301489-3 V2.1.1:2019-08-01	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; -- Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 248 GHz; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU (ETSI EN 301 489-3 V2.1.1 (2019-03)) (english version)
ÖVE/ONORM EN 301489-17 V3.2.2:2020-02-01	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; -- Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility (Draft ETSI EN 301 489-17 V3.2.2 (2019-12)) (english version)
ÖVE/ÖNORM EN 300330 V2.1.1:2017-04-01	Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU
EN 62368-1:2014	Audio/video, information and communication technology equipment -- Part 1: Safety requirements (IEC 62368-1:2014, modified)
ÖVE EN 62368-1/A11:2017-12-01	Audio/video, information and communication technology equipment -- Part 1: Safety requirements (Amendment) (german version)

EU declaration of conformity

in accordance with the Low-Voltage Directive 2014/35/EU, Annex IV

Translation

Applied harmonised standards:

EN 50364:2010	Limitation of human exposure to electromagnetic fields from devices operating in the frequency range 0 Hz to 300 GHz, used in Electronic Article Surveillance (EAS), Radio Frequency Identification (RFID) and similar applications
ÖVE/ÖNORM EN 62369-1:2010-05-01	Evaluation of human exposure to electromagnetic fields from short range devices (SRDs) in various applications over the frequency range 0 GHz to 300 GHz - Part 1: Fields produced by devices used for electronic article surveillance, radio frequency identification and similar systems (IEC 62369-1:2008) (german version)
ÖVE/ÖNORM EN 300328 V2.2.2:2019-10-01	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum (ETSI EN 300 328 V2.2.2 (2019-07))
Additional information	The following test reports were created by TÜV SÜD Product Service GmbH: TR-44451-66496-01 Ed.1 (EMC), TR-44451-66496-02 Ed.1 (RF EN300 330), TR-44451-66496-03 Ed.1 (Safety), TR-44451-66496-06 Ed.1 (EMF), TR-44451-66496-08 Ed.1 (RF EN300 328)

10.2 FCC statement

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

10.3 IC statement

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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