Asap 5A497C0 Card reader for carsharing application Instructions

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Contents

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“.

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.

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

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 si - tuation)	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)

Technical terms and abbreviations used

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

General Safety Regulations

Principles

The ZKL must only be operate in perfect technical condition.

Intended use

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

Foreseeable misuse

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

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.

Measures in an emergency

Fire fighting

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

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

Technical description

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.

Card slots

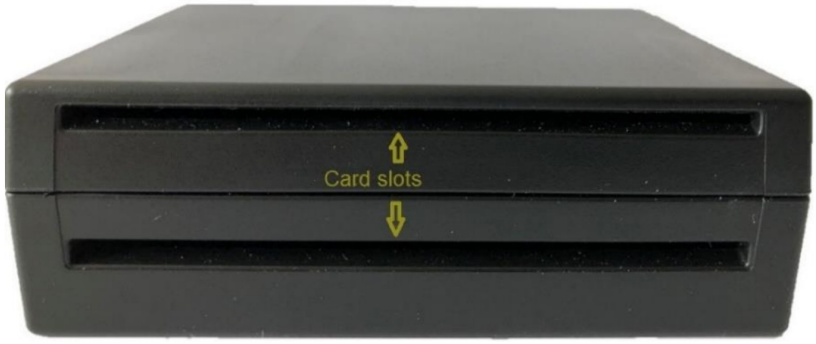

Fig. 4.1 Card slots

Type label

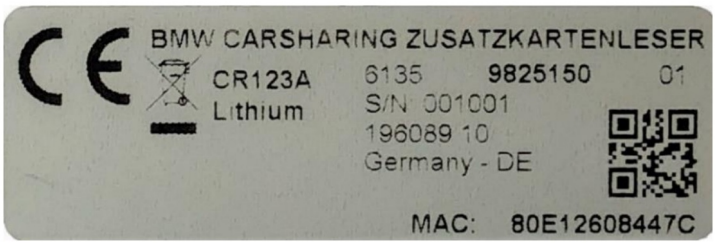

Fig. 4.2 Type label – CE marking

- **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**

Installation and commissioning

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**

Fig. 5.1 Locking Clips

- Housing is now open – **fig 5.2**

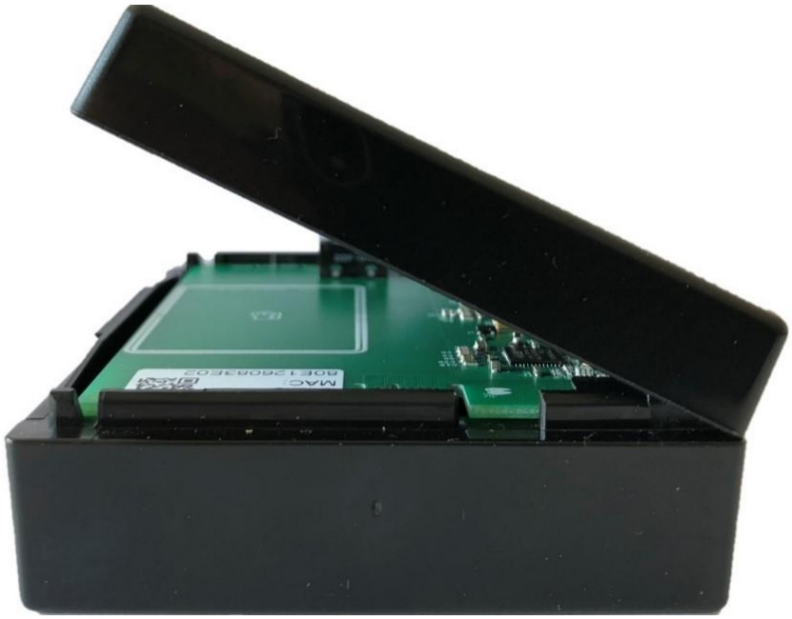

Fig. 5.2 Open housing

- 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**

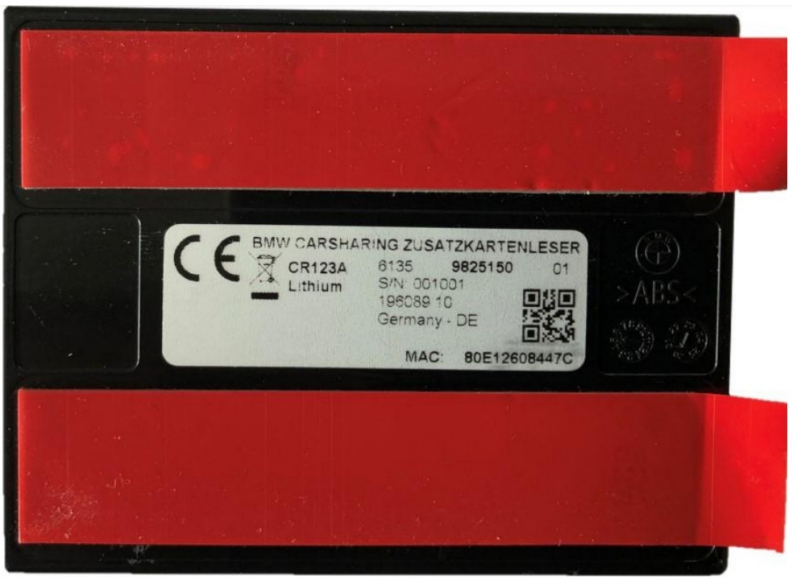

Fig. 5.3 Position adhesive tapes ZKL

- Fix the ZKL to the defined position in the vehicle

Operating ZKL

ZKL – Modes

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

Switching the ZKL on

- Look at commissioning

Switching the ZKL off

- Remove the batter

Help in case of faults

Procedures for faults or errors

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

Fault and error messages

- Please contact service!

Removing faults

- Remove and insert the card again
  If the fault or error message continues to occur, please contact service.

Decommissioning and disassembly

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.

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 RF ID 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

Appendix

Declaration of conformity

EU declaration of conformity
in accordance with the Low-Voltage Directive 2014:35.fU, Annex IV Translation

Manufacturer
ASAP Elector es GmibH
Sachsstrable 1A
DE-85080 Gaimersheim

Representative within the EU

ASAP Electronics GmbH
Sachsstrabe 1A
EE-85080 Gaimersheim

Object of this declaration

- **Product IP Article:** CARSHARING ZUSATZKARTENLESER
- **Serial number:** from 1001
- **Project number:** PRJ-2020-05-06-0001
- **Comrnercal 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 restricts r cf 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 201415.3.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 153/162 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)
OVE/ONORM EN 301489-1 V22.32020-01-01
ElectroMagnetic Compatibility (EMC) standard for radio equipment and services: — **Part 1:** Common technical requirements; Harm:rimed Standard for Elect°Magnetic Compatibility (ETSI EN 301 489-1 V2.2.3 (2019-11))
OVE/ONORM EN 301489-3 V2 1.1:2019-08-01
ElectroMagnetic Compatibility (EMC) standard for rad equipment and services. — **Part 3:** Specific conditions for Short-Range Devices (3RD) 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 (EISI EN 301 489-3 V2.1.1 (2019-03)) (English version)

OVE/ONORM EN 301489-17 V3.2.2:2020-02-01
ElectroMagnet Compatibility {EMC}standard for radio equipment and services; – Part 17: Speak conditions for Broadband Data Transmission Systems; Harmonised Standard for ElectroMagnetic Compatibility (Draft ETS1 EN 301 489-17 V32-2 (2019-12 (English version)
OVE/ONORM EN 300330 V2 A.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; Harmonized Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EL
EN 62368-1:2014
Audio/video information and communication technology equipment — **Part 1:** Safety requirements (IEC 62368-1:2014, modified)

OVE 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 electromagnet c fields from devices operating in the frequency range 0 Hz to 300 GHz, used it Electronic Article Surveillance (EAS). Radio Frequency Identification (RFID) and similar applications
OVE/ONORN 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)

OVE/ONORM EN 300328 V2.2:22019-10-01
Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz band; Harmonized Standard for access to radio spectrum (ETSI EN 300 328 V2.2.2 (2019-07))

Additional Information
The following test reports were created by TOV SOD Product Service GmbH: TR-44451-66498-01 Ed.1 (EMC). TR-44451-66496-01 Ed.1. TR-44451-66496-03 Ed-1 (Safety). TR-44451-66496-06 Ed.1 (EMF), TR-44451-66496-08 Ed.1 (RF EN300 328)

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.

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.

Contact us

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Documents / Resources

	**Asap 5A497C0 Card reader for carsharing application** [pdf] Instructions 5A497C0 Card reader for carsharing application, Card reader for carsharing application, carsharing application

References

- **ASAP – Automotive Systems and Projects | Die ASAP Gruppe**