

User manual / Functional description

for

SIEMENS - MERCEDES BENZ

Radio - Frequency - Remote - Control – System

FBS 3

5WK4 8705

SIEMENS AG
FCC ID: KR55WK48705
EXHIBIT #: ISA

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Functional description

General product data

Summary FBS III (IIIrd generation immobilizer system)

The FBS III is a system which combines the convenience function of a remote-controlled central locking system (access control) with the safety function of an immobilizer system.

Access control (remote control): Opening, closing and remote-controlled trunk unlocking are effected by a unidirectional radio link. A redundant infrared link has been set-up for the functions "opening, closing and remote-controlled trunk unlocking"; additional functions are implemented via infrared as comfort functions.

The basic equipment of the FBS3 system comprises the electronic main key for the access and immobilizer functions. All electronic keys are equipped with mechanical keys which ensure mechanical opening of the doors in cases of emergency.

Functional description of the key

The key access remote control is realised as RF and IR emitter. The main key is available in various designs or variants, according to the requirements of the different countries.

"USA/Canada " design

The USA/Canada design comprises the following push-buttons.

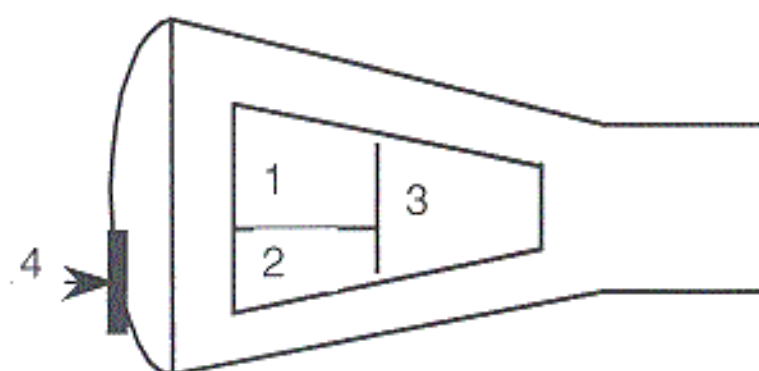


Fig. 1: USA/Canada key design - Arrangement of push-buttons

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Description of push-buttons:

Push-button 1 (Unlock)	press 1 x	selective
unlocking		
Push-button 1 (Unlock)	press 2 x (<40s)	global unlocking
Push-button 1 (Unlock)	press and keep pressed (>2s)	"summer"opening
Push-button 2 (Trunk)	press 1 x (keep pressed > 500 ms)	trunk opening
Push-button 3 (Lock)	press 1 x	global locking
Push-button 3 (Lock)	press 1 x and keep pressed	convenience
		closing

Re-programming of the push-button function "global/selective unlocking" is possible by the simultaneous (within 300ms) pressing of the push-buttons 1 and 3 for at least 5 seconds.

Push-button 1 (Unlock)	press 1 x	global unlocking
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Programming can be reversed at any time by another re-programming step.

If reprogramming has been accomplished successfully, this is confirmed as follows by the battery indicator:

2 x flashing: 300ms ON, 300 msec pause, 300 msec ON

Push-button 4 (Panic)	press and keep pressed > 1 sec	panic alarm
(Push-button 4 is an option)		

Sequence of remote-controlled functions

Key	Direction of transmission Transmission method	Receiver
Pressing of a push-button activates the μ -controller; transmission of identification and rolling code follows; power supply of the key via 2 lithium cells	=====> HF =====> Infrared	Decoding of signals and transfer to control unit, for decodification of code
Information "window lift" via transmission of comfort signals	=====> Infrared	Decoding of signals and transfer to control unit, for decodification of code
The red LED indicates battery status		

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Operator functions regarding the type approval for radio equipment

The keys which are subject to type approval for radio equipment can be put in specific radio transmission states by activating the specific push-button combinations.

The following specific functions are available:

- Continuous transmission, higher FSK transmission frequency
- Continuous transmission, lower FSK transmission frequency
- Continuous transmission, FSK transmission signal

Push-button combination:

- Push-button 1: Continuous transmission, higher FSK transmission frequency ("Opening" push-button)
- Push-button 3: Continuous transmission, lower FSK - transmission frequency ("trunk" push-button)
- Push-buttons 1 and 3 simultaneously:
Continuous transmission, FSK - transmission

signal

Push-button 2: Continuous transmission OFF ("Closing" push-button)

The system has to be turned off between each transmission mode.

Type FBS 3 consists of:

MLFB-number	Component
5WK4 8705	RF - transmitter

Label design:

Siemens 315 MHz
5WK4 8705
FCC ID: KR55WK4 8705
CAN: xxx xxx xxx

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