

Document : **User Manual for Remote Keyless Entry System**

Project : **SVI-SKRGE04**

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1. System configuration

1.1 Short description of the IBU Foldingkey

1.1.1 How to use Foldingkey

- Foldingkey is Remote Keyless System.
- This unit controll door lock/unlock/trunk with wireless.
- THE Foldingkey is a device that transmits the signal when the button is Pressed.

1.1.2 Introduction of Transmitter(Foldingkey)

- Transmitter has four/ three buttons
- Transmitter use the battery
- Frequency is 433.92MHz
- Modulation type is FSK by PLL IC
- Transmitter use Rolling code algorithm

1.1.3 Introduction of BCM

- BCM use the vehicle battery
- Receiver is integrated and the frequency is 433.92MHz
- After receiving the Transmitter signal , the BCM decides which operation will be performed. (Lock, Unlock, Trunk, Panic)

1.2 System Overview / Block Diagram

Technical description of alarm function:

SK BCM is designed to indicate intrusion into the vehicle by unauthorized door open. SK BCM receives CAN Signal of any door open including engine hood and trunk, and then SK BCM send CAN signal to SJB (Smart Junction Box) so that SJB can drive Alarm device such as horn and visible Lamp for 27s.

When alarm state is set by Foldingkey, SK BCM check all door lock status by CAN signal. And then SK BCM enters alarm system mode and drives Security Indicator which shows alarm setting status to the operator. SK BCM provides an alarm setting locking function to prevent inadvertent setting of the alarm when KEY is inserted in the Key Hole.

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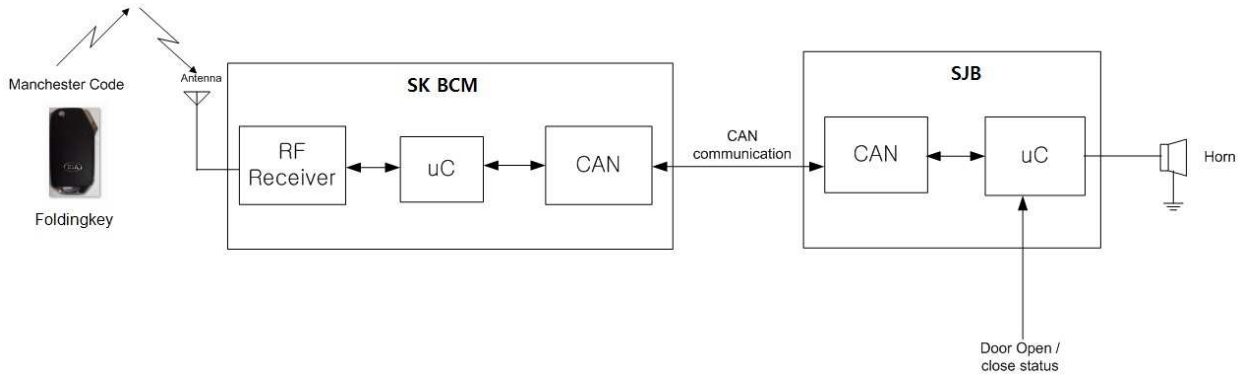


Figure 1: System Block Diagram

1. Foldingkey Lock button pushed
2. Foldingkey sends the data by radio frequency
3. SK BCM receives the RF data and decodes it.
4. SK BCM check KEY if received ID is right ID or not.
5. SK BCM checks all door lock status by CAN signal.
6. SK BCM enter Alarm System Mode
7. If SK BCM receives any door open signal, SK BCM sends CAN signal to SJB to operate horn and visible lamp.

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2 Smart Key Fob operation

2.1 Button operation



You can lock, unlock, trunk and hold your vehicle with this remote transmitter.

Lock

- When you push this button, all the doors will be locked.
- You can not lock any of the doors with this remote transmitter if any door is open or the key is in the fob holder.

Unlock

- When you push this button, all the doors will be unlocked.
- You can not unlock any of the doors with this remote transmitter if any door is open or the key is in the fob holder.

HOLD(Trunk)

- When you push this button and hold more than 1 second, the trunk will be opened.

Panic

- When you push this button for about 1 second, Horn will alarm.

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3 Homologation

FCC Compliance Statement.

**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.**

Do Not



Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

IC Compliance Statement.

**This device complies with Industry Canada licence-exempt RSS standard(s).
 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 present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et**
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.**

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