

**Title :**  
**Information Document**

**NO.**  
**Date**

SHT/SHTS : 2/15

1. Normal

1.1 Produce

**Mobase Electronics co.**

1.2 Product Model Name  
**MBECIBUB2109**

1.3 Manufacturer name and address

**Mobase Electronics co.**

100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do

1.4 Assembly plant address

**Mobase Electronics co.**

100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do

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2. Remote Key System Product Description

2.1 Configuration of the remote key system

2.1.1 Folding key: The transmitter is configured in the remote control key, and it transmits a rolling code to the receiver by radio frequency.

2.1.2 Receiver: The receiver receives and decodes the rolling code and operates the actuator.

2.2 remote key performance

2.2.1 transmitter

ITEM	SPECIFICATION
Rated supply voltage	DC 3V
Operating voltage range	DC 2.5 ~ 3.2V
Operating temperature range	-20 ~+60℃
Storage temperature range	-30 ~ 80℃
Modulation	FSK
Frequency	433.92MHz
Code	Rolling Code(Hopping Algorithm)
Electric field strength	10mW (433.92MHz)
Battery life	3 Year(20Cycle/Day)(Lithium 3V 1EA)

2.2.2 receiver

Item	Specification
Rated Supply Voltage	DC 12V
Operating Voltage	DC 9 ~ 16V
Operating Temperature	- 35 ~ + 75℃
Max Humidity	95%
Standby Current	Below than 3.5mA (in alarm setting condition)

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### 2.3 Description of remote key system operation

- ① The transmitter button is pressed.
  - ② The transmitter transmits the code via radio frequency.
  - ③ The receiver decodes the received code.
  - ④ The receiver checks whether the received code is correct or incorrect.
  - ⑤ The receiver receives door lock, unlock, and trunk status as CAN input.
- Receiver: The receiver receives and decodes the rolling code

#### 2.3.1 Lock & Unlock

- ① When the lock or unlock button is pressed within 1 second, the transmitter sends lock or unlock data.

### 2.4 Warning

- ① Danger of explosion if battery is not removed correctly.
- ② In case of replacement, the product recommended by the manufacturer or equivalent specification should be used.
- ③ When replacing the battery, follow the manufacturer's instructions.

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3. Remote Key System User Manual

3.1 Name: IBU\_BCM system

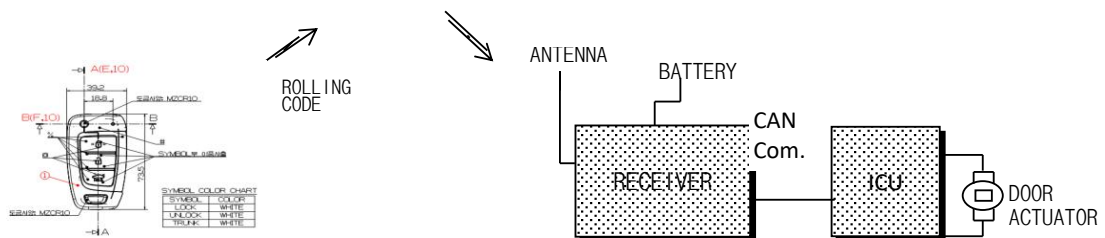
- This system includes IBU\_BCM and RKE.
- BCM and RKE systems enable automatic door lock or unlock or trunk operation in the vehicle.
- This IBU\_BCM system is installed as \*OE ITEM on a motor vehicle.

Receiver: The receiver receives and decodes the rolling code

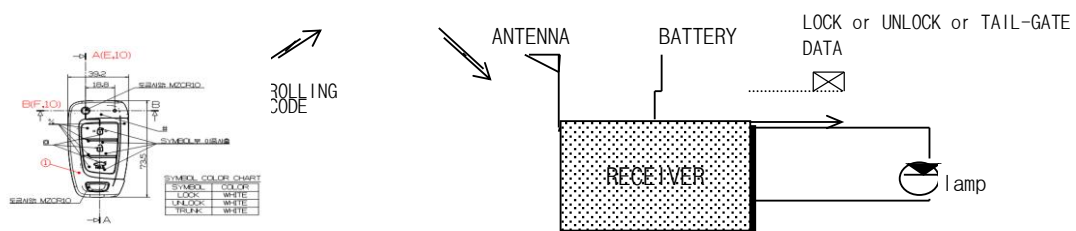
- \*IBU\_BCM
- \*RKE

3.2 System structure

3.2.1 Vehicle system



3.2.2 System for testing



\* Through the lamp used, it shows the operating status.  
When the lamp is 'On', it means that the actuator is operated by the door lock or unlock or tailgate output signal.

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## 5. Immobilizer User Manual

- ① It is a key with a built-in TRANSPONDER and can be used after registering the key.
- ② If IG is ON with the registered KEY, ICU starts TRANSPONDER communication.
- ③ If there is no normal communication of TRANSPONDER KEY CODE, it is executed up to 5 times.
- ④ The IBU is normally input with the TRANSPONDER KEY CODE and is sent from the ENGINE ECU.  
After receiving the REQUEST CODE, the ANSWER CODE, which is the start command,  
is transmitted to the ENGINE ECU.

**FCC warning statement:**

**15.19**

λ. 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.

**15.105**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment

off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**15.21**

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

- This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

- End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

**FCC/ IC RF Radiation Exposure Statement:**

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 15cm between the radiator & your body.

This device complies with FCC/ ISED radiation exposure limits set forth for an uncontrolled environment.

IC warning statement:

**RSS-Gen Issue 4 8.4**

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, et (2)*

*l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

**Industry Canada ICES-003 Compliance Label:**

CAN ICES-3

**Co-located**

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.