

Title :

Information Document

NO.

Date

0. GENERAL

0.1. Make

SEOYON ELECTRONICS

0.2. Model No.

- Transmitter

**Remote Keyless Entry Transmitter
SYEC3TX1612**

- Receiver

**Unit Assy-BCM & Receiver
SYECBCM1611**

0.3. Name and address of manufacturer

SEOYON ELECTRONICS

424, Sinwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea

0.4. Address of assembly plant

SEOYON ELECTRONICS

424, Sinwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Korea

711, Baekseok-dong, Seobuk-gu, Cheonan-si, Chungcheongnam-do, Korea

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2. PRODUCT SPECIFICATION

2.1 Remote Keyless Entry System

2.1.1 KEY PART : TRANSMITTER is inside of the REMOTE KEY, and it sends the ROLLING CODE to the RECEIVER by Radio Frequency.

2.1.2 RECEIVER : It receives the ROLLING CODE and decodes that, thereafter RECEIVER drives the actuator.

2.2 SPECIFICATIONS

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 4.0mA (in alarm setting condition)

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2.3 Operating summary

- ① TRANSMITTER's button is pushed.
- ② TRANSMITTER sends the code by radio frequency.
- ③ RECEIVER gets the code and decodes it.
- ④ RECEIVER judges the code whether it is right code or not.
- ⑤ RECEIVER checks door lock or unlock Tail-Gate state.
- ⑥ RECEIVER drives the actuator.

2.3.1 LOCK & UNLOCK

- ① If LOCK or UNLOCK button is pushed for less than 1 sec, then TRANSMITTER sends the LOCK or UNLOCK DATA.

2.4 Caution

- ① Danger of explosion if battery is incorrectly replaced.
- ② Replace only with the same or equivalent type recommended by the manufacturer.
- ③ Dispose of used batteries according to the manufacturer's instructions.

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3. USER MANUAL

3.1 NAME : BCM system

- This system is BCM and includes RKE.
- RKE in BCM system is intended for auto door lock or unlock or TAIL-GATE in vehicle.
- This BCM system is to be installed on motor vehicles as *OE item.

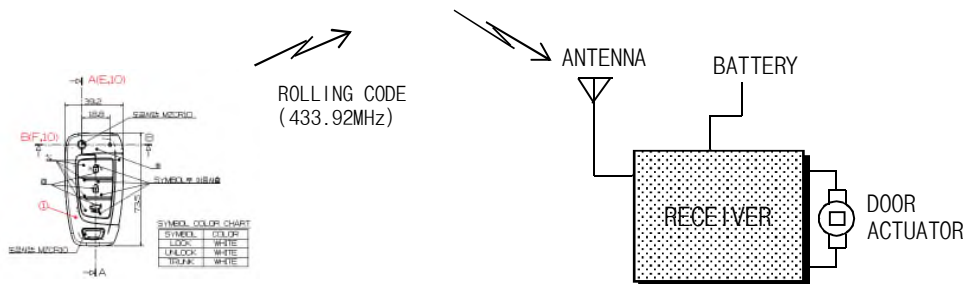
*OE : Original Equipment.

*BCM : Body Control Module.

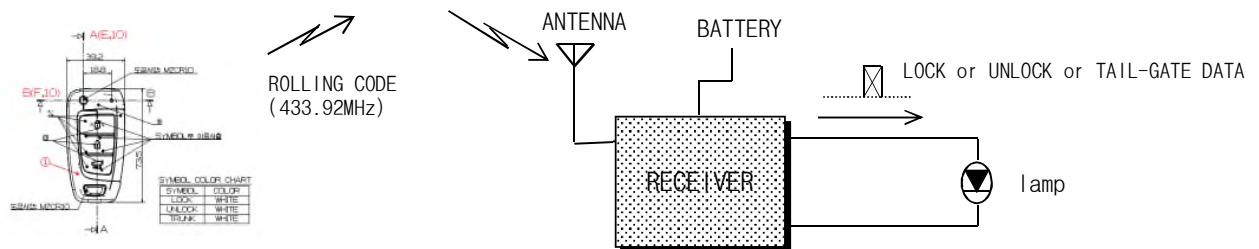
*RKE : Remote Keyless Entry.

3.2 SYSTEM CONSTRUCTION

3.2.1 SYSTEM IN VEHICLE



3.2.2 SYSTEM FOR TEST



* Through the use of lamp, operating state is displayed by lamp.

lamp 'ON' means that actuator is operated by door lock or unlock or tail-gate output signal.

FCC Information

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 interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 correct the interference by one or more of the following measures:

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

WARNING

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

"CAUTION : Exposure to Radio Frequency Radiation.

Antenna shall be mounted in such a manner to minimize the potential for human contact during normal operation. The antenna should not be contacted during operation to avoid the possibility of exceeding the FCC radio frequency exposure limit.

"ATTENTION: L'exposition aux rayonnements à fréquence radioélectrique.

Antenne doit être montée de telle manière à minimiser le risque de contact humain pendant l'utilisation normale. L'antenne ne doit pas être contacté pendant le fonctionnement pour éviter la possibilité de dépasser la limite de l'exposition aux fréquences radio de la FCC.

IC Information

This device complies with Industry Canada license-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 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.