

2018.12.26

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Revision History

Rev.	날짜	수정 내용	담당
1.0	2018.12.26	First Release	Bae wonsik

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Revision History

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1. Synopsis

This document is specifically-written manual for receiver and transmitter (SMART KEY FOB) of wireless communication, which is to confirm user identifications under engine-start limiting function in heavy equipments.

SMART KEY FOB is defined as following: it receives signals with RFID 133 kHz and wakes up. After then, it transmits password-secured information to SMART KEY CONTROLLER by using 433MHz wireless signals.



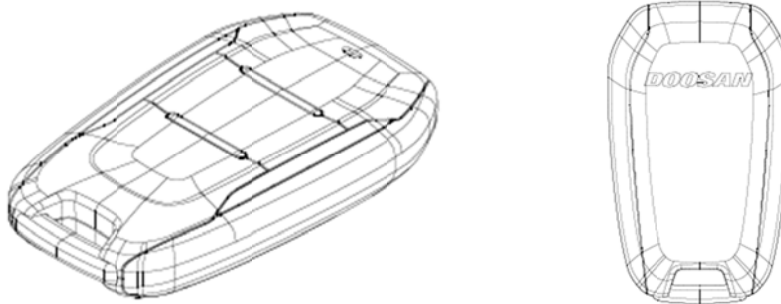
WARNNIG

Exchanging batteries in incorrect way, It may cause explosion

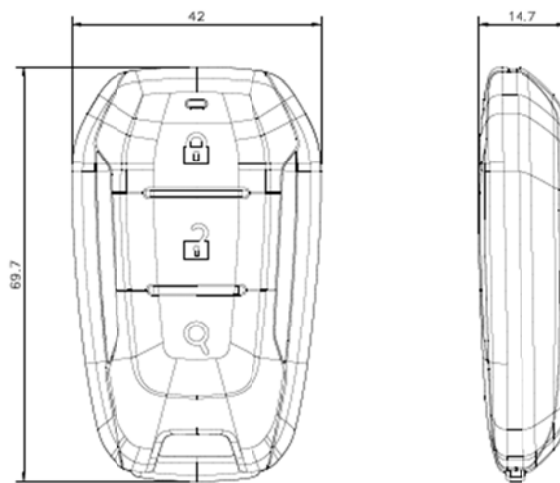
Discard used batteries according to manufacturer's instructions

2. Product Image

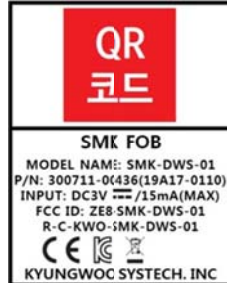
1) External Appearance



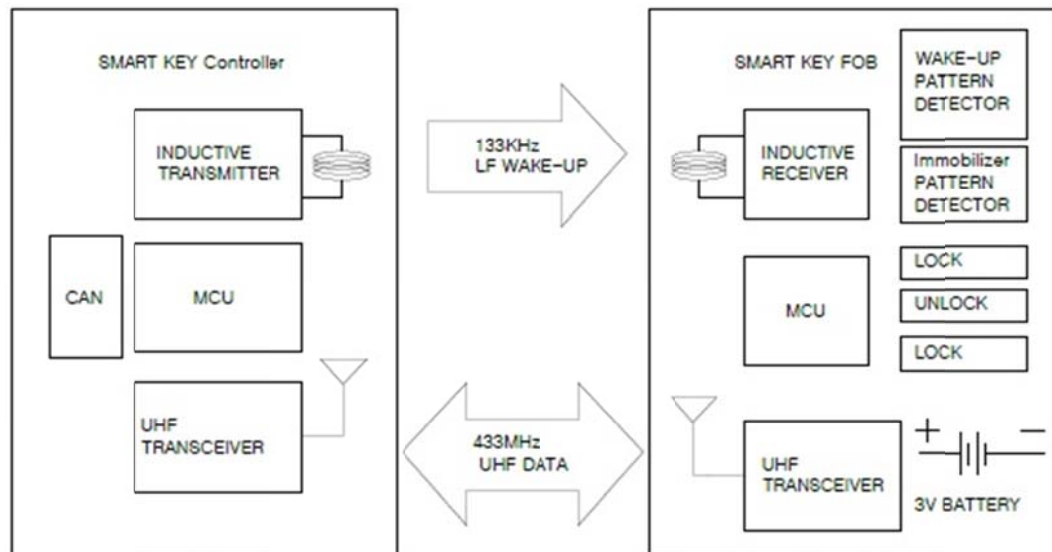
2) Dimension



3) Certification LABEL location



4) Block Diagram



4. Specification

4.1. Operating Specification

- Must wake up the remote control by providing electricity with RFID 133 kHz.
- Must be operating with CR2032 battery.
- Must be able to transfer password-secured signals.
- Must be able to use Single channels band of 433MHz.


4.2. Power Specification

- 3 V d.c. (CR 2032 Lithium Battery)
- Notice : Inserting opposite polarity of battery may cause explosion or damage to product

(Please match battery polarity with battery holder)

4.3. General Specification




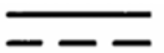
- Storage Temperature: -30℃ ~ 80℃
- Operating Temperature: -20℃ ~ 60℃
- Water-Proof Specification: IP54 (Living Water-Proof)
- Material of Device : PC (Material: 1220r, Flame Class : V2, Manufacturer : Lotte Chemical)
PC&ABS (Substance : LUPOY GN-5001RF BLACK, Flame Class : V0, Manufacturer : LG CHEMICAL)
TPE (Material: TC5MGA-S340)
ZNP (Material: 하급아연괴 DC2, Manufacturer : (주)영풍)
- PCB Material :

object/part No.	manufacturer/ trademark	Layer /Thickness	Flame Class	standard	mark(s) of conformity ¹⁾
SMK TAG B/D PCB	JM ELECTRONICS CO LTD	2Layer /0.8T	V-0	UL 796	

4.4 RF Specification

Item		Specification
Wireless Data Communication System	Frequency Range	433.050 MHz ~ 434.790 MHz
	Operating Frequency	433.92 MHz (Single Channel)
	RF Power	Under 1 mW
	Modulation Method	GFSK
Magnetic Induction System	Operating Frequency	133 KHz (Single Channel)
	RF Power	Receive Only
	Modulation Method	ASK

4.5. Product label Explanation of graphic symbols used

Symbol	Description
	Korea Certification Marking
	Communaute Europeenne Marking
	Electrical waste and electronics equipment
	Direct current

5. Postal address:

Kyungwoo Systech, Inc. Office: +82-2-985-8085

#401, Daeryung Post Tower 5, 68, Digital-ro 9, Geumcheon-gu, Seoul, South Korea

Zip Code: 08512, E-mail: Webmaster@kyungwoo.com

This equipment is not suitable for use in locations where children are likely to be present.

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.

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

RED Compliance Statement

This product is CE marked according to the provision of the RED (2014/53/EU). Hereby Kyungwoo Systech, Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU