

SMART KEY TAG

User' Manual

2015. 05. 13

| Prepared(작성) | Reviewed(검토) | Approved(승인) |
|--------------|--------------|--------------|
| Bae wonsik | | |

Revision History

| Rev. | 날짜 | 수정 내용 | 담당 |
|------|------------|---------------|------------|
| 1.0 | 2015.05.13 | First Release | Bae wonsik |
| | | | |
| | | | |

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1. Synopsis

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

SMART KEY TAG is defined as following: it receives signals with RFID 125 KHz and wakes up. After then, it transmits password-secured information to SMART KEY READER by using 2.4 GHz Zigbee wireless signals.

| |
|--|
|  WARNNIG |
| Exchanging batteries in incorrect way, It may cause explosion Discard used batteries according to manufacturer's instructions |

2. Product Image

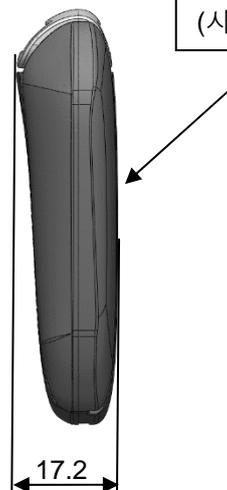
1) External Appearance



2) Dimension



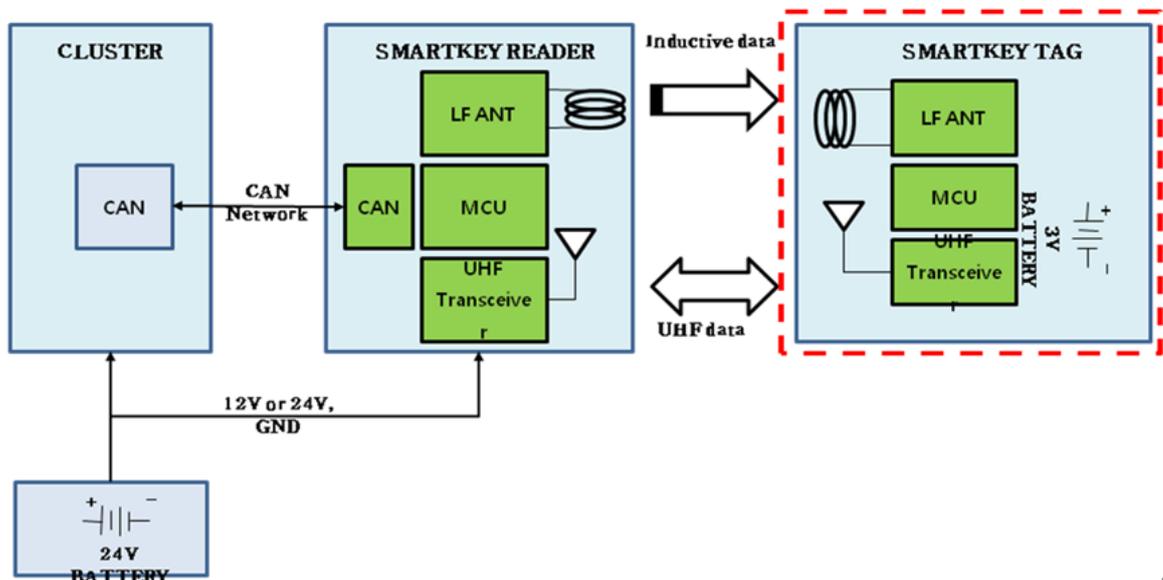
인증 LABEL 부착 위치
(사이즈 22.5mm X 15mm)



3) Certification LABEL location



4) Block Diagram



4. Specification

4.1. Operating Specification

- . Must wake up the remote control by providing electricity with RFID 125 KHz.
- . Must be operating with CR2032 battery.
- . Must be able to transfer password-secured signals.
- . Must be able to use all 16 channels with Zigbee band of 2405 to 2480MHz.

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: -20°C ~ 70°C
- . Operating Temperature: -10°C ~ 60°C
- . Water-Proof Specification: IP54 (Living Water-Proof)
- . Material of Device : PC (Material: 3025N1, Flame Class : V0, Manufacturer : SAMYANG)
- . PCB Material :

| object/part No. | manufacturer/ trademark | type/model | technical data | standard | mark(s) of conformity ¹⁾ |
|--------------------|----------------------------|------------|----------------|----------|--|
| SMK TAG B/D PCB | WOOMYUNG ELEC CO | SKD | V-0 ; 105 °C | UL 796 | UL |

4.4. RF Specification

| Item | | Specification |
|--|---------------------|-------------------------------|
| Wireless Data Communication System | Operating Frequency | 2405 ~ 2480 MHz (16 Channels) |
| | RF Power | Under 10mW |
| | Modulation Method | OQPSK |

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.

To comply with RF exposure compliance requirements, the antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This product is CE marked according to the provision of the R&TTE Directive (99/5/EC). Hereby Kyungwoo Systech Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC

CE 0678