

Title :
Information Document

NO. : SCE-0713

Date : 08. October. 2007

1. PRODUCT SPECIFICATION

1.1 Scope of Remote Keyless Entry in ETACS system.

1.1.1 Key part : Transmitter is inside of the remote key, and it sends the rolling code to the receiver by radio frequency.

1.1.2 Receiver : It receives the rolling code and decodes that, thereafter receiver drives the actuator.

1.2 Specification

1.2.1 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 | FM |
| Frequency | 315MHz |
| Code | Rolling Code(Hopping Algorithm) |
| Electric field strength | 0.01mW |
| Battery life | 2 Year(Lithium 3V 1EA) |

1.2.2 Receiver

| Item | Specification |
|-----------------------|--|
| Rated Supply Voltage | DC 12V |
| Operating Voltage | DC 9 ~ 16V |
| Operating Temperature | - 30 ~ + 80℃ |
| Max Humidity | 95% |
| Standby Current | Below than 6mA (in alarm setting condition) |

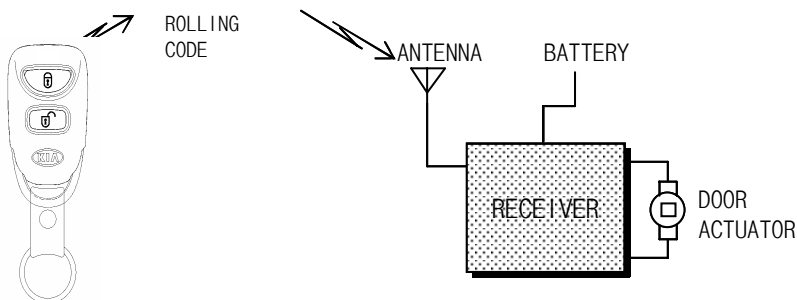
2. USER MANUAL

2.1 Name : ETACS system

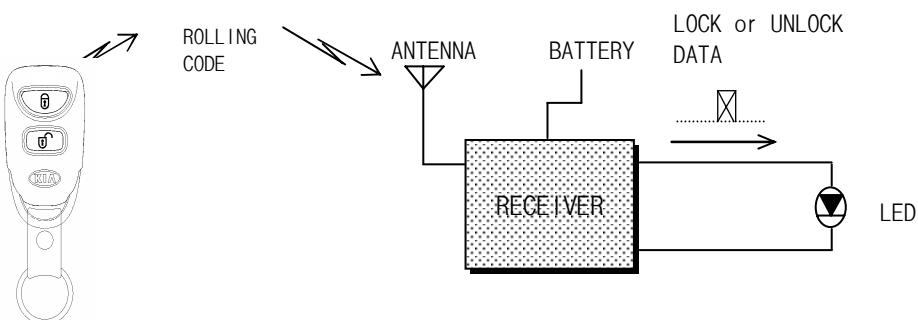
- This system is ETACS and includes RKE.
- RKE in ETACS system is intended for auto door lock or unlock in vehicle.
- This ETACS system is to be installed on motor vehicles as *OE item.
 - * OE : Original Equipment.
 - * ETACS : Electronic Time & Alarm Control System.
 - * RKE : Remote Keyless Entry.

2.2 System construction

2.2.1 System in vehicle



2.2.1 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 output signal.

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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 state.
- ⑥ Receiver drives the actuator.
- ⑦ Receiver drives the horn

2.3.1 Lock & Unlock

If transmitter's button is pushed,
Transmitter sends the code.

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.

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. The minimum separation distance of 20cm from the antenna to the body of user required."