

INFORMATION DOCUMENT NO. SCE-0006

RELATING TO FCC TYPE-APPROVAL
AS SEPARATE TECHNICAL UNIT
OF VEHICLE RF REMOTE KEYLESS ENTRY

CONTENTS LIST

Information Document	(5 sheets: including this sheet)
Attachment 1 - System diagram	(1 sheet)
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WARNING

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

SHINCHANG ELECTRICS CO., LTD.

-July, 26, 2000 -

Title : Information Document	NO. : SCE-0006
	Date : July 26, 2000

2. PRODUCT SPECIFICATION

2.1 SCOPE

2.1.1 KEY PART : TRANSMITTER is inside of the FOLDING 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, and sends the DATA to ETACS*.

*ETACS : Electronic Time & Alarm Control System.

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 ~ 85℃
Modulation	AM
Frequency	315.00MHz
Code	Rolling Code(Hopping Algorithm)
Electric field strength	100 ~ 500 μ V/m (315.00MHz)
SPURIOUS RADIATION	-43dBm (MAX)
BATTERY LIFE	2 YEAR(Lithium 3V 1EA)

2.2.2 RECEIVER

ITEM	SPECIFICATION
Rated Supply Voltage	DC 12V
Operating Voltage	DC 9 ~ 16V
Operating Temperature	- 30 ~ + 80℃
Storage Temperature	- 40 ~ + 85℃
StandBy Current	3.0mA (max)
Sensitivity	Min -98dBm

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3. USER MANUAL

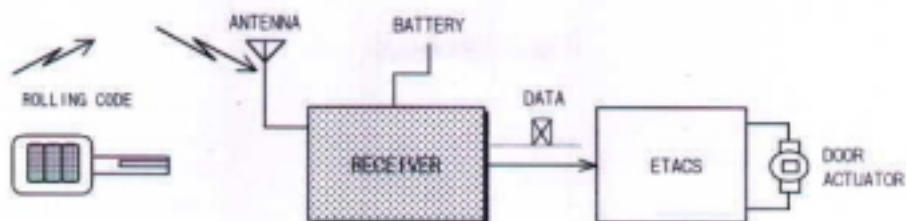
3.1 NAME : REMOTE KEYLESS ENTRY SYSTEM

This RKE System is to be installed on motor vehicles as OE(= original equipment) item.

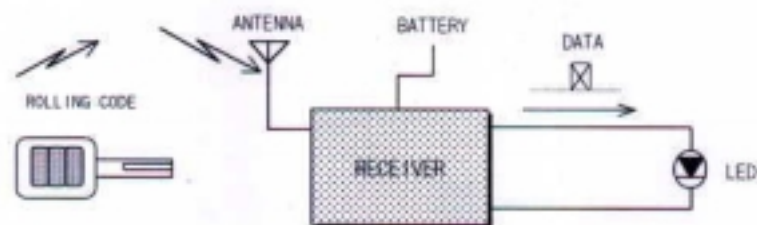
It is intended for auto-locking/unlocking of the door

3.2 SYSTEMS CONSTRUCTION

SYSTEM IN VEHICLE



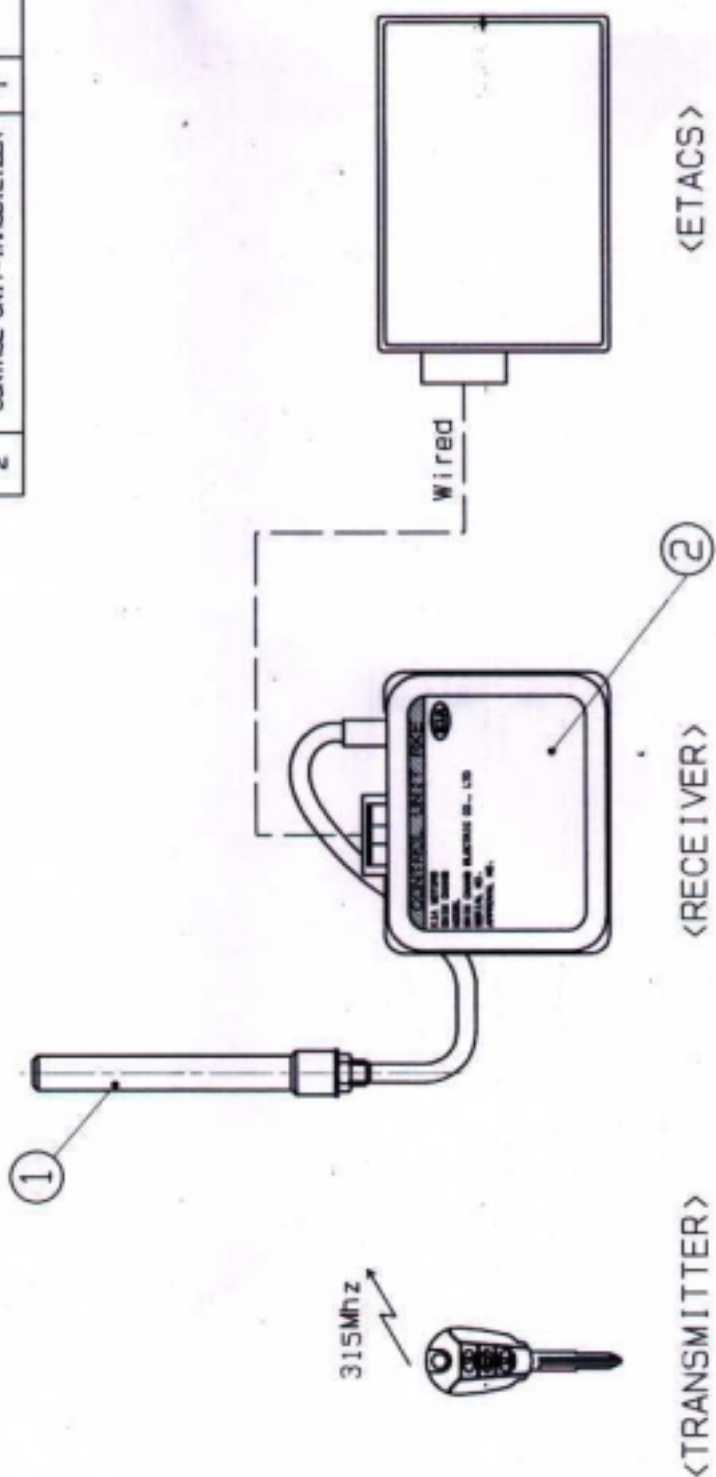
SYSTEM FOR TEST



* Through the use of LED, operating state is displayed by LED.
LED 'ON' means that DATA is sended to the ETACS.

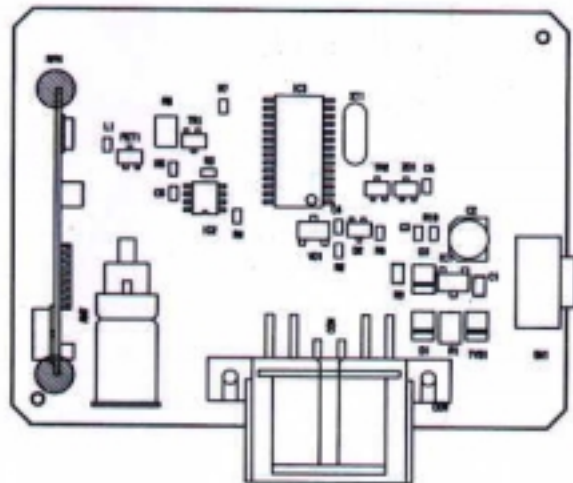
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3.3 <u>OPERATING SUMMARY</u> ① By the driver of the vehicle, TRANSMITTER's button is pushed ② TRANSMITTER sends appropriate CODE by RF frequency. ③ RECEIVER gets the code and decodes it. ④ When Rx proves it to be the right code, Rx sends DATA(instruction) to the ETACS. ⑤ ETACS receive it, and drive the actuator. The system has the function as follows. * Whenever DATA is sended to ETACS, LED is turned 'ON'. 3.3.1 LOCK & UNLOCK If LOCK or UNLOCK button is pushed for less than 1 sec, then TRANSMITTER sends the LOCK or UNLOCK DATA. 3.3.2 TRUNK OPEN If TRUNK button is pushed for more than 0.5 sec, then TRANSMITTER sends the 'TRUNK OPEN' DATA	

NO.	PART NAME	QTY	REMARKS
1	ANTENNA	1	
2	CONTROL UNIT-IMMOBILIZER	1	

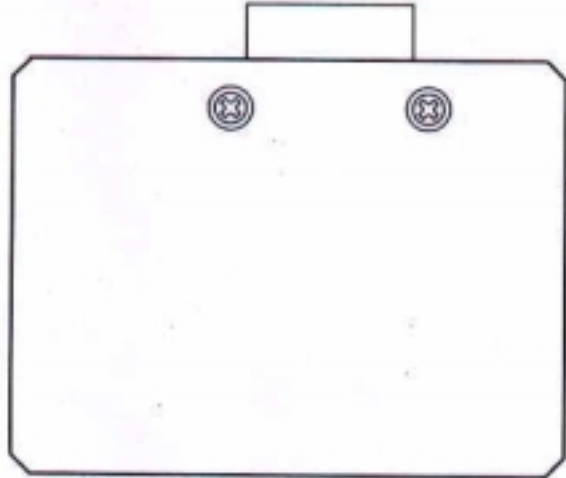


NAME	RKE UNIT
TITLE	SYSTEM DIAGRAM
SCALE	FREE

NO.	PART NAME	QTY	REMARKS
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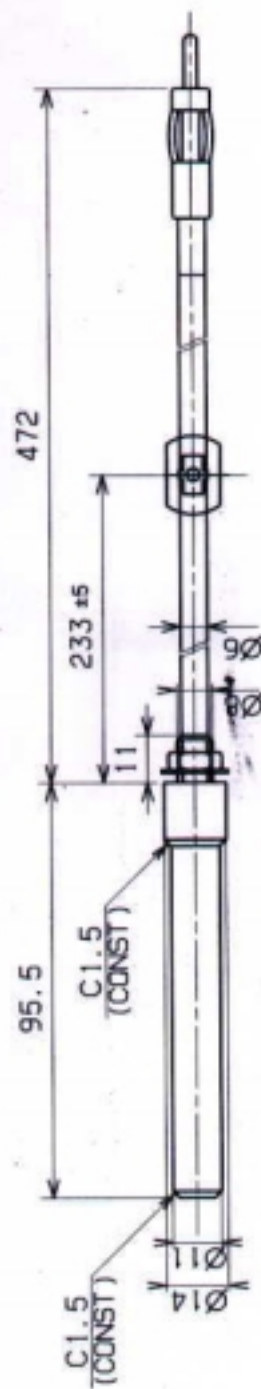
TOP SIDE



BOTTOM SIDE

NAME	RECEIVER
TITLE	PCB LAYOUT
SCALE	FREE

NO.	PART NAME	QTY	REMARKS
NAME	ANTENNA ASS'Y	TITLE	EXTERIOR LAYOUT
SCALE	FREE		



INFORMATION TO THE USER

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 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.

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