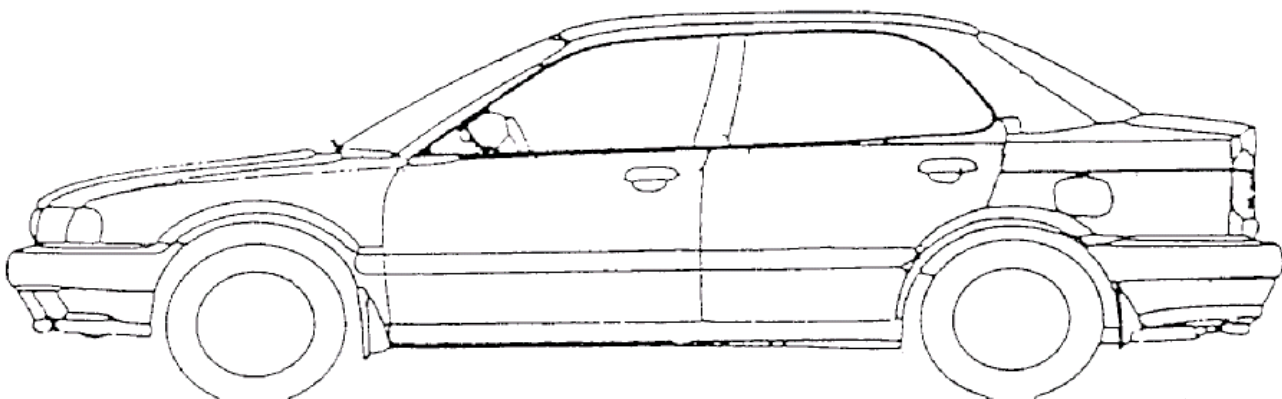


1. Constitution of the Radio Frequency Keyless Entry System for vehicle

The radio frequency keyless entry is a system that it controls locking and unlocking the door by wireless remote controller. This system consists of three components. The TRANSMITTER is a device that transmits the signal when the button is pressed. The transmission signal consists of several synchronous codes , unique identification code , security code and function code. The RECEIVER is fixed inside the vehicle. It works intermittently to prevent the battery exhaustion. When the receiver detects the synchronous code, it runs continuously to receive the signals completely. After receiving the signal, the receiver decides which operation will be performed. The user can select the following operations by pressing the button of the remote transmitter.

OPERATION	ACTION
LOCK	Lock the Door
UNLOCK	Unlock the Door
PANIC	Alarm the Panic



Transmitter
 $f = 433.92\text{MHz}$



Device

2. User's manual (provisionally)

REMOTE TRANSMITTER

You can lock and unlock your vehicle with the remote transmitter.

LOCK

When you push the LOCK button, all the doors will lock.

You cannot lock any of the doors with the remote transmitter if any door is open or the key is the ignition switch.

UNLOCK

When you push the UNLOCK button, all the doors will unlock.

You cannot unlock any of the doors with the remote transmitter if any door is open or the key is in the ignition switch.

PANIC

When you push the PANIC button for 1.0sec, horn will alarm.

3.Features

3.1 Transmission frame

The transmission begins immediately in case of LOCK and UNLOCK, PANIC button is pressed.

The transmission frame consists of the synchronous frame and the data frame. The synchronous frame has 320bit synchronous codes that it will be used for the receiver to wake up. The data frame consists of 24bit length identification code, 16bit security code and 4bit function code and 8bit crc code.

16million different identification codes are available.

The security code is always changed in case of any of the buttons is pressed. The transmission time is typically 300 milliseconds.

FCC/ISED NOTICE

[FCC]

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: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC

[ISED]

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the ISED

Cet appareil est conforme aux limites d'exposition aux rayonnements de l'ISDE pour un environnement non contrôlé.

L'émetteur ne doit pas être colocalisé ni fonctionner conjointement avec à autre antenne ou autre émetteur, à moins d'y être autorisé par l'ISDE.