# SECTION 1

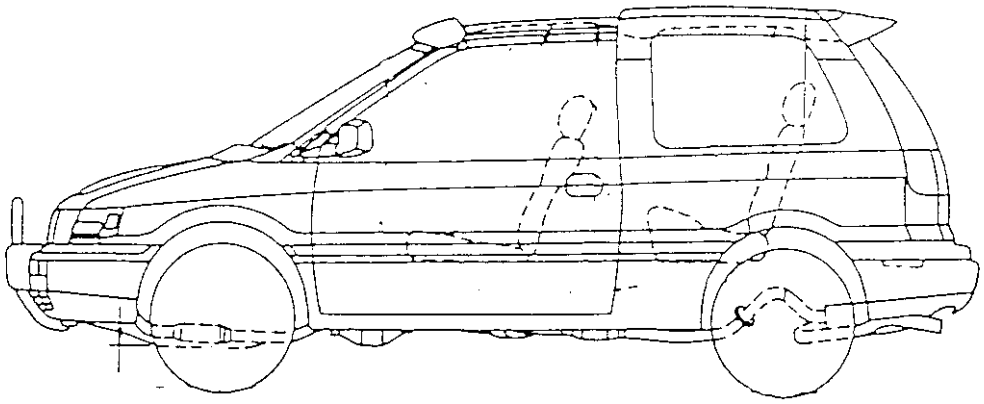
# GENERAL INFORMATION

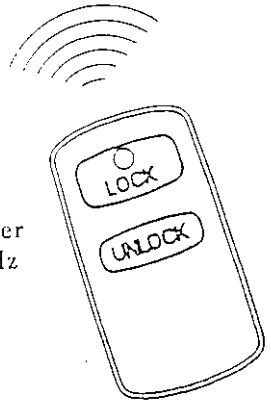
## 1.1 Product Description of EUT

### 1.1.1 Constitution of the Radio Frequency Keyless Entry System for Vehicle

The radio frequency keyless entry is a system that it controlls locking an unlocking the door by wireless remote controller. This system consists of two 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 |






Transmitter
f = 315MHz

### 1.1.2 Features

#### 1.1.2.1 Transmission frame

The transmission begins immediately in case of LOCK or UNLOCK button is pressed.

The transmission frame consists of the synchronous frame and the data frame. The synchronous frame has 30 synchronous codes that it will be used for the receiver to wake up. The data frame consists of 24 bit length identification code, 16 bit security code and function code. 16 million 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 600 milliseconds.

#### 1.1.2.2 Battery saving

To prevent the battery exhaustion, the micro-computer of the transmitter is usually inactive. When the button will be pressed, the micro-computer wakes up immediately and judges which button is pressing. Then the micro-computer constructs the transmission frame and radiates it from the antenna. After transmitting, the micro-computer switches stand-by mode by itself.