

# THE RE-1 OPERATION DESCRIPTION

## GENERAL:

This device is used to control the car alarm into arm mode or disarm mode and other function. It consists of a car alarm module and a hand held control transmitter. They are four push buttons of the transmitter to operate the car alarm. the arm button is for arm the car alarm, the disarm button is for disarm the car alarm, the open trunk button is for control two channel output of the car alarm, the panic button is for panic the car alarm. An internal twelve-volt alkaline battery provides power for the transmitter.(transmitter buttons position see diagram 1)

The car alarm module has one thirteen connector for connect wiring to the car. the car alarm module obtains its power from the car battery +12VDC. the receiver module is consisting in car alarm module. The car alarm module will accept a total of 3 different transmitter codes.

## OPERATION:

### TRANSMITTER

The hand-held remote is a 315Mhz transmitter with an output power of less than 10mW. the carrier is pulse modulated at 38kHz with a 25% duty cycle and contains status code and function data (12 bits/byte). when the four push buttons of the transmitter is depressed, the transmitter emits the code and data signal, which repeats every 42.24ms until the button is released. the purpose of the data is to send commands to control the car alarm module into arm mode or disarm mode and other function.

The signal modulator(2262), with an internal clock of 100KHz produces the 12 bit modulator data (8 status+4 function). this chip work, drives an RF power transistor loaded with tuned antenna tank circuit. The antenna is etched onto the PC board.

The transmitter can be set 8 bit status code input to the modulator, which can be manually set jump line on the PC board. A red LED is connected to the modulator to indicate the transmitter is working now.

A single 12-volt battery supplies the power source for the transmitter. The circuit is protected from accidental reversed installation of the battery using IN4148 diode. The average current consumption of the unit in the transmit mode is 2.8mA.

### RECEIVER

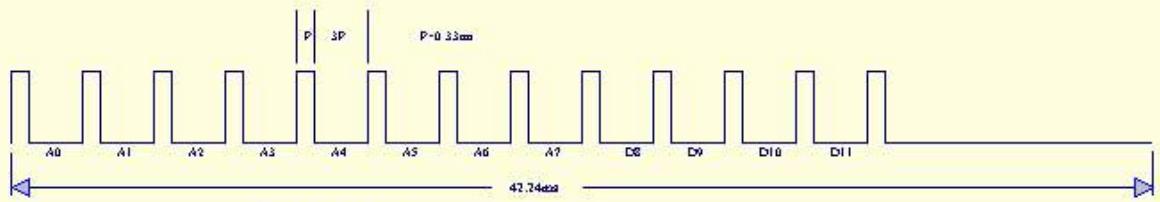
The receiver is a self-contained module consisting of car alarm module, a status LED, a push button valet switch, a main wiring harness. Car alarm module consisting of two PC boards, one is receive circuit, and other is main control board. The power supply from the car battery +12VDC.

The +12VDC power source input are protected from the voltage by way of 15A fuse.

The receiver board assembly is a two-stage, 315MHz, transistor receiver with tuned LRC circuits a dual OP amp (LM358) amplifies the signal. the antenna is a stiff 55cm black wire connected to the PC board. The board is connected to the main control board.

The CPU on the main control board executes all functions when prompted by data received.

A +12VDC voltage to the filtered (IN4007 diode, 220uF capacitor, 0.01uFcapacitor) to produce 11.3VDC, the voltage regulator (MC78L05) connected to the 11.3VDC from a voltage-dropping resistor (47 ohms), supplies the 5VDC to the CPU circuit and the receive board assembly. The receiver current drain is 10mA DC.

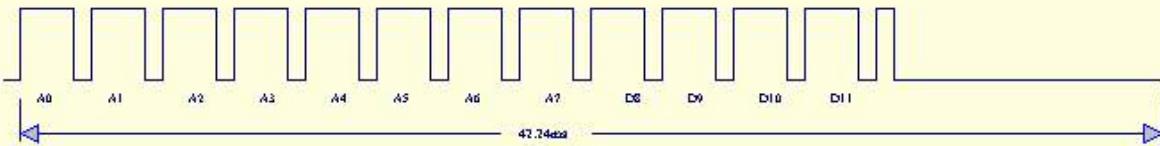


AD-A7-D D8-D11-D

12 BIT PULSE WAVEFORM

OPERATION

D8-D D9-D D10-D D11-I ARM  
D8-D D9-D D10-I D11-D DISARM  
D8-D D9-I D10-D D11-D OPEN TRUNK  
D8-I D9-D D10-D D11-D PAINC



AD-A7-I D8-D11-I