Sound Generator 4. Three Sirens & Machine Gun

SPECIFICATIONS

Low power cmos LSI chip designed for use in toys. Sounds are preprogrammed in ROM. Two LEDs can be driven directly from the chip. 2.4V to 3.6V operation. Selector circuit is incorporated in the IC. There are 4 modes in which the chip can be operated. We present the one shot mode here. Oscillator resistor 300K - 330K. Use any small signal transistor.

Sirens vary from country to country, so what is an ambulance in the UK may be a fire engine in S. Africa! So here we just identify the siren sound by a number!

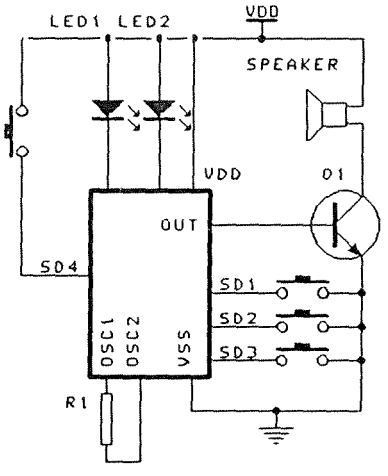


Fig. 1. One Shot Mode

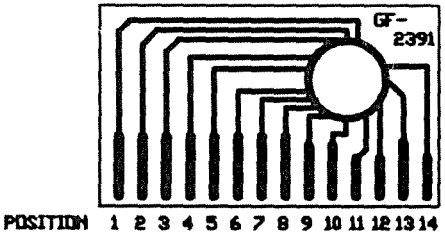
One Shot Mode. Sound is generated for about 8 sec. when a negative pulse is applied to SD1, SD2 & SD3, or when a positive pulse is applied to SD4. This is done by a push-on switch. See Fig. 1.

Solder the COB PCB into the slot on the motherboard. Follow the overlay pattern to mount the other components. The short lead on the LED corresponds to the bar on the overlay. Supply hookup wire as required

PINOUT

Bonded on a 29mm x 16mm single sided PCB.

PCB Position	Function
1	Switch 4, SD4
2	Ground, Vss
3	Mode pin 2, M2
4	Mode pin 1, M1
5	Switch 3, SD3
6	Switch 2, SD2
7	Switch 1, SD1
8	Audio out
9	LED 1
10	LED 2
11	Positive supply, V_{DD}
12	Selection pin, SP1
13	Oscillator 1
14	Oscillator 2



Documentation Revision 1, June 1994. Motherboard added 7/98.

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COMPONENTS for One Shot Mode	
8 ohm speaker	1
3V battery snap	1
LED	2
300K resistor R1	1
SG4 COB PCB	1
BC547	1
Push-on switch	4
SG4 Motherboard	1