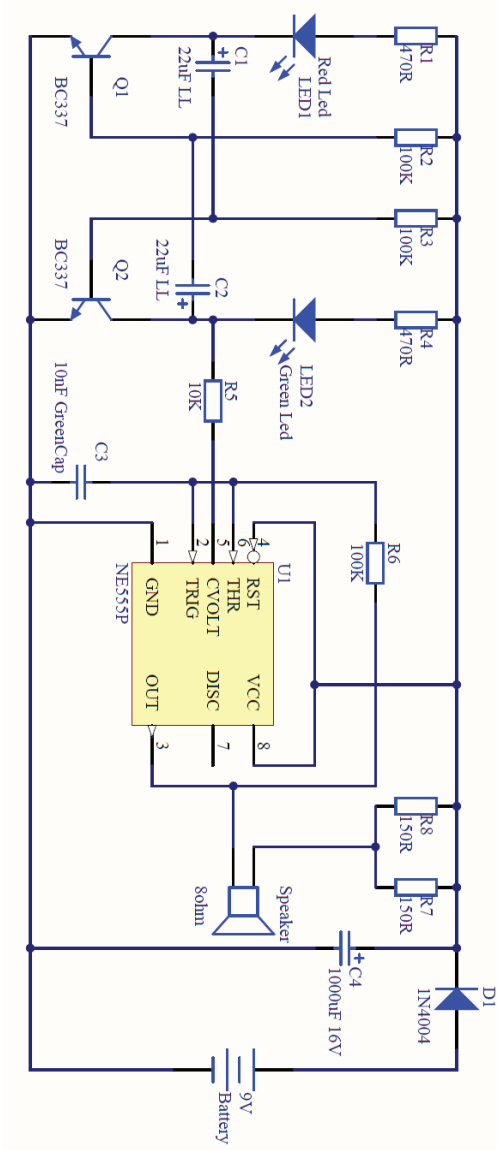

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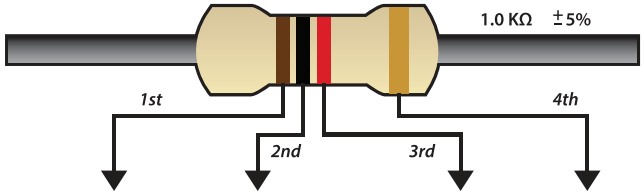
Once the Battery is connected the siren should start and produce a wailing sound with one LED coming on and then the other as the siren "wails" and changes tone.
If this does not happen disconnect battery and check PCB for incorrectly inserted components, shorts between solder joints, or not properly soldered joints.

*Note - If IC has not been inserted but the Battery is connected then the LED flasher will work by itself. Then when battery disconnected and IC inserted and soldered, battery reconnected, sound will be produced and tone will vary going from one LED to another.

RESISTOR COLOUR CODE GUIDE



Colour	1st Band	2nd Band	Decimal Multiplier	Tolerance
Black	0	0	1	1	
Brown	1	1	10	10	± 1%
Red	2	2	100	100	± 2%
Orange	3	3	1K	1000	
Yellow	4	4	10K	10,000	
Green	5	5	100K	100,000	
Blue	6	6	1M	1,000,000	
Violet	7	7	10M	10,000,000	
Grey	8	8	100M	100,000,000	
White	9	9	1000M	1,000,000,000	
Gold			0.1	± 5%
Silver			0.01	± 10%
None				± 20%

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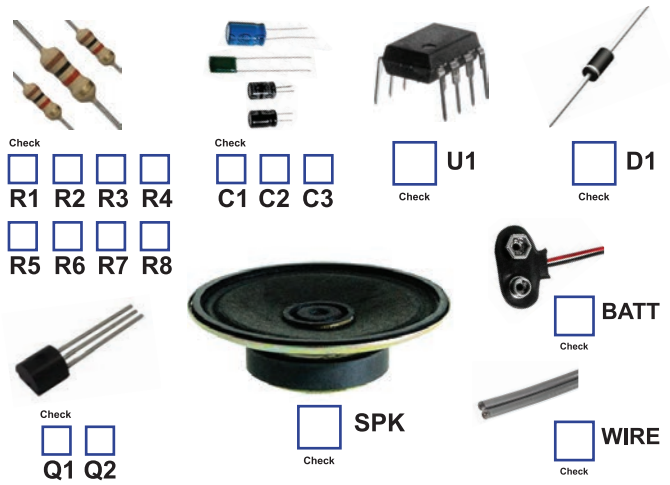
(KI0236)

Wailing Siren Kit

Tekky Kit

Component List

Designator	Part Description	Part No.
R1, R4	47 0R 0.25W 1% Resistor (Yellow, Purple, Black, Black)	RS5445
R2, R3, R6	100K 0.25W 1% Resistor (Brown, Black, Black, Orange)	RS5445
R5	10K 0.25W 1% Resistor (Brown, Black, Black, Red)	RS5605
R7, R8	15OR 0.25W 1% Resistor (Brown, Green, Black, Black,)	RS5385
C3	.01uF, (10nF) 100V Poly/Green Cap	CC2049
C1, C2	22uF, 50V RB Electro Capacitor	CC1428
C4	1000uF, 16V RB Electro Capacitor	CC1470
U1	555 Timer IC	X-LM555N
D1	1N4004 1A Silicon Diode	X-1N4004
Q1, Q2	TO-92 BC337 NPN Transistor	X-BC337
SPK	57mm 8 ohm 0.5W Speaker	SP1203
BATT	9V Battery Snap	BA9000
WIRE	10cm Speaker Wire	CB0100



In this kit there are two Oscillators.
1. A two Transistor Mulitvibrator
2. A 555 Timer IC

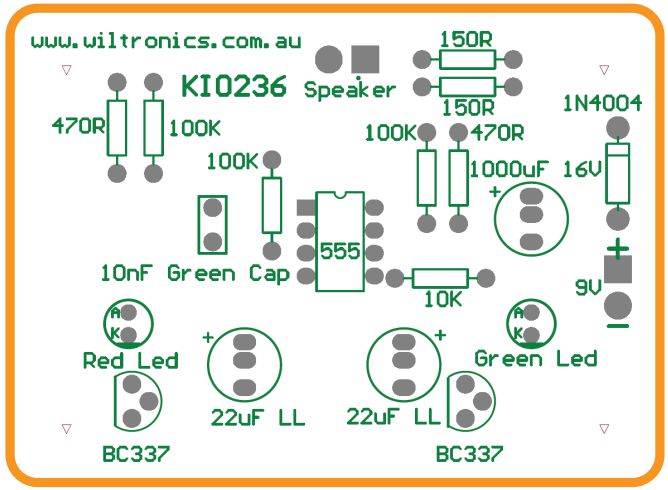
The Mulitvibrator output is used to flash the LEDs and also vary the frequency of the 555 Oscillator. The 555 IC Output produces the siren output and drives the speaker

This is how we create the two tones that the IC produces

As the Multivibrator goes from Red LED to Green LED the DC voltage on the input to the 555 is changed.

This produces the wailing sound.

PCB Component Overlay



Using the component overlay, the component list and the circuit diagram load and solder the components into the printed circuit board (PCB).

*Note - It is good practice to load all low level parts first ie resistors & diodes, then load the next level, ie transistors, then capacitors, ect

Take care when fitting all the polarised components :
Diode, LEDs, IC, transistors and electrolytic capacitors.

The battery connector wires can now be soldered to Pads on PCB, ensure Black to - and Red to +.

Next solder wires to speaker pads (in this application speaker polarity is not critical, can go either way).

When finished, closely inspect your solder joints and your component placements are all okay.

Now check your battery with a multimeter to ensure it is okay.

Then proceed to testing.