Simple Electronic Siren

There is probably no greater attention-getting sound in our modern society that the rising and falling wail of a siren. And if this effect can be created by using only a handful of electronic components, then it becomes possible to use it in many otherwise impractical situations.

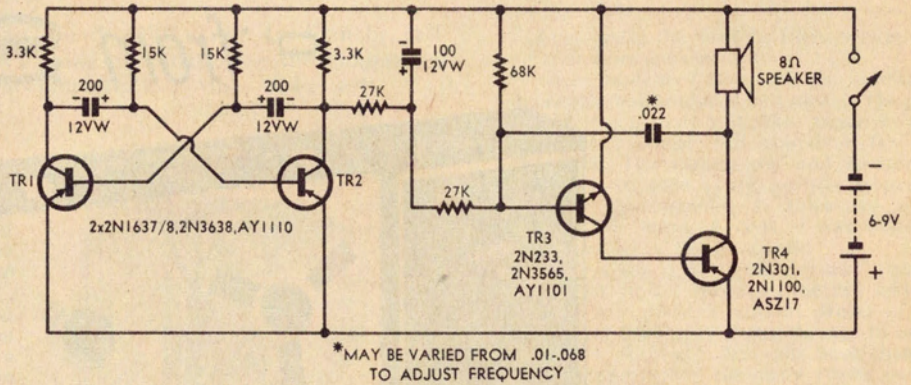
This unit is a combination of two circuits; a multivibrator (TR1, TR2) and a two transistor oscillator (TR3, TR4). The multivibrator controls the rise and fall of the oscillator frequency to provide the siren effect. It does this by feeding a rising voltage developed across the 100uF capacitor, to the base of TR3. This causes the frequency to rise.

When the multivibrator switches, the charged 100uF capacitor is allowed to discharge through the 27K and 68K resistors, producing a falling note.

The circuit can be modified slightly, if desired, to simulate the dying notes of a siren when it is finally switched off. All that is required is a switch between the collector of TR2 and the 27K resistor which, when opened, will disconnect the 100uF capacitof from the multivibrator circuit and allow it to fully discharge through the 68K and second 27K resistor.

The second circuit is the two transistor oscillator. This circuit relies on leakage current between collector and base of TR4. If the oscillator does not deliver sufficient volume, a resistor of between 1K and 10K should be placed between these two points.

Current drain is relatively large and a larger than normal battery should be used for an economical life. The eveready type 2362 is ideal, with a life of over twelve months with typical intermittent service.



The circuit of the siren, contributed by Mr C. Trevitt, 6 Gregson Place, Curtin, ACT.