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Circle No. 1 on Reader Service Card

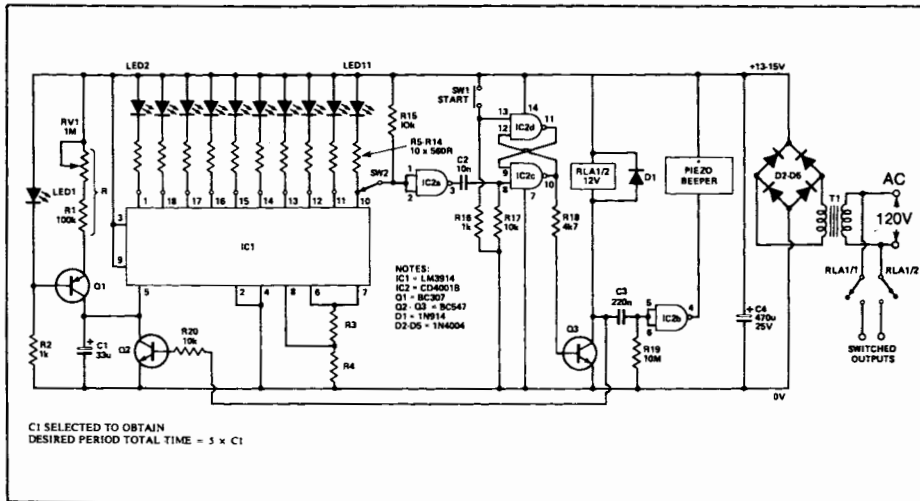
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## Incremental Tim

R.A. Penfold

THE LM3914 LED display drive, IC1, is connected as a zero to 5V (full scale) voltmeter to display in the bargraph mode. Thus, each LED will turn on at increments of 0V5 as the input of IC1 is driven by the voltage across capacitor C1. This is charged with a constant current so that the voltage across it will rise linearly with time. That is, the voltage across C1 rises, the LEDs will light up one by one until the voltage reaches 5V or until C1 is

the relay and alarm are operated by selecting one of the outputs of IC1. When the output goes 'active' (when the LED lights), the alarm sounds, the relay drops out and the timer is reset by discharging C1. For example, if the third increment is selected (pin 17, IC1), then LEDs 2, 3 and 4 only will light, the alarm sounding when LED4 lights. C1 is then discharged at that time, resetting the timer ready for its next use.



The complete circuit of the Incremental Timer. T1 is 9 to 12 V, 6 VA

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