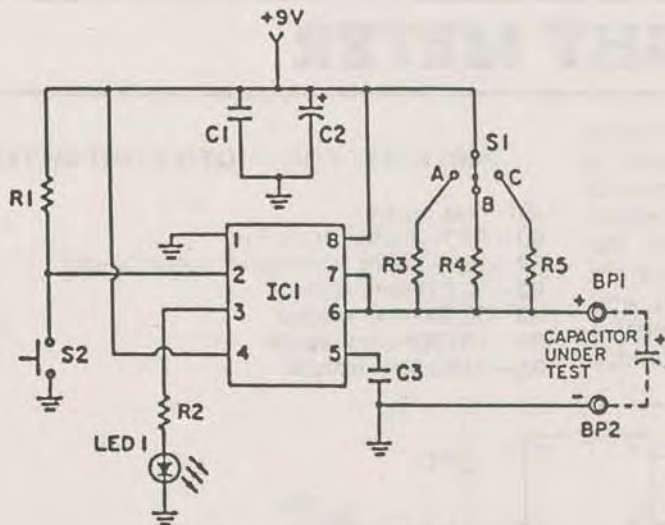


ELECTROLYTIC CAPACITOR TESTER

Here's a quick and simple way to check out all those old electrolytic capacitors in your junkbox. Besides this simple 555 timer circuit, you will need a timepiece with a readout in seconds; the readout may be digital or just an ordinary sweep-second hand. Connect the capacitor to be tested to the binding posts, being careful to observe proper polarities. Now, press S2 and note how long LED 1 stays lit. Multiply the time by the appropriate scale factor to obtain the capacitance. For example, suppose you happen to be checking a very large filter capacitor, which would require that scale C, 100 $\mu\text{F}/\text{sec}$, be used. If the LED remains lit for 67 seconds, the capacitance is 67×100 or 6700 microfarads.

PARTS LIST FOR ELECTROLYTIC CAPACITOR TESTER

- BP1, BP2**—binding post
- C1, C3**—0.1- μF capacitor, 35 VDC
- C2**—100- μF electrolytic capacitor, 16 VDC
- IC1**—555 timer
- LED1**—light-emitting diode
- R1**—100K-ohm resistor
- R2**—560-ohm resistor
- R3**—910K-ohm resistor
- R4**—91K-ohm resistor
- R5**—9100-ohm resistor
- S1**—single-pole, 3-position rotary switch
- S2**—normally open SPST pushbutton switch



TIME SCALE TABLE

<u>Range</u>	<u>Scale</u>
A	1 $\mu\text{F}/\text{second}$
B	10 $\mu\text{F}/\text{second}$
C	100 $\mu\text{F}/\text{second}$