

CAPACITOR CONTINUITY TESTER

THE capacitor continuity tester is built around a 4011 i.c. using the basic oscillator circuit shown in Fig. 1. The frequency is approximately, $f = \frac{1}{1.7RC}$ Hz and this relationship was used to determine the values of R for a given value of C and a nominal frequency of 1kHz.

The working values of R and the corresponding ranges of C are given in the table and the actual tester circuit in Fig. 2.

Rather than leave the two unused gates idle, another oscillator was constructed and this formed the continuity tester, Fig. 3. The two testers were combined as shown in Fig. 4. The output was fed to the BC108/loudspeaker driver and the combined tester was powered by a PP3 battery.

This tester proved to be a very useful item especially when dealing with ex-computer type components etc.

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Capacitor Range	Resistor
0-1,000pF	R1 3.3M Ω
1,000pF-0.01 μ F	R2 430k Ω
0.01 μ F-0.1 μ F	R3 47k Ω
0.1 μ F-1 μ F	R4 4.7k Ω
1 μ F-10 μ F	R5 3.3k Ω
10 μ F	R6 —

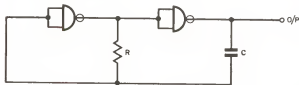


Fig 1

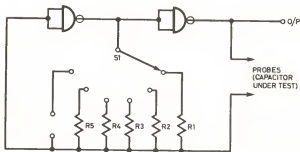


Fig 2

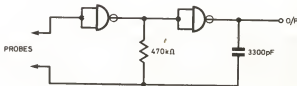


Fig 3

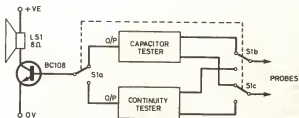


Fig 4