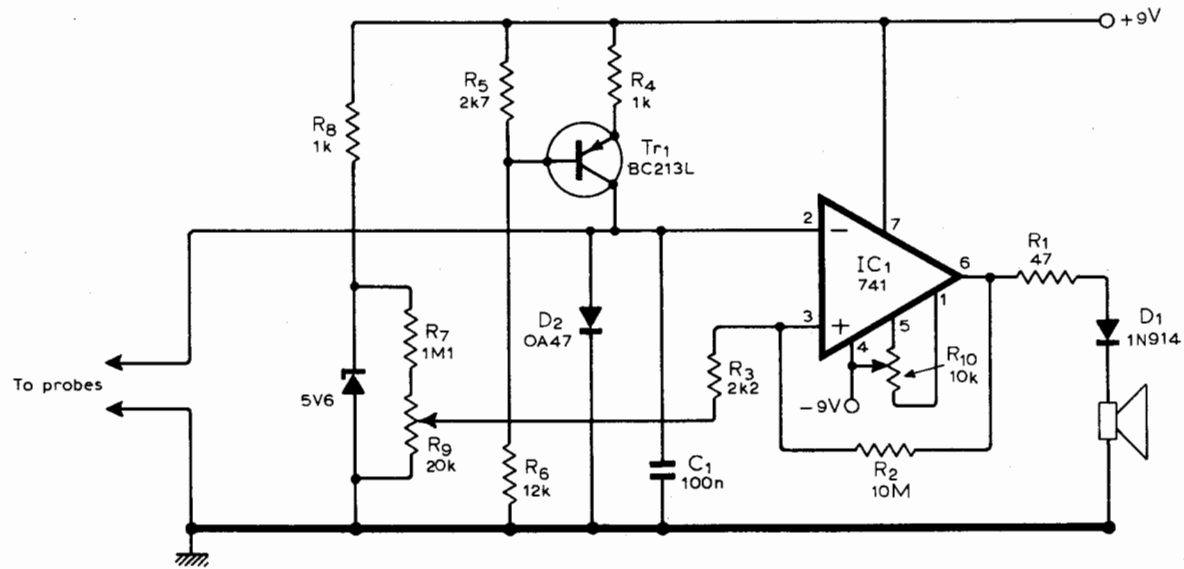

Continuity tester

THIS INSTRUMENT was designed for testing equipment which has active components connected. The probes have an open circuit output clamped at 0.3V, and the short circuit current is only 1mA. Transistor Tr_1 forms a constant current source of 1mA with the collector, and therefore the probe, held at 0.3V by a germanium diode. The op-amp forms a Schmitt trigger with an adjustable threshold set by R_9. This trigger point determines the maximum resistance that will operate the circuit, and may be preset within the range 0 to 90Ω. Use of R_{10} in conjunction with R_9 eases setting-up for low values of resistance. An ITT miniature sounder type U5-35R is used to indicate continuity. If a non-capacitive sounder is used R_1 can be omitted.

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