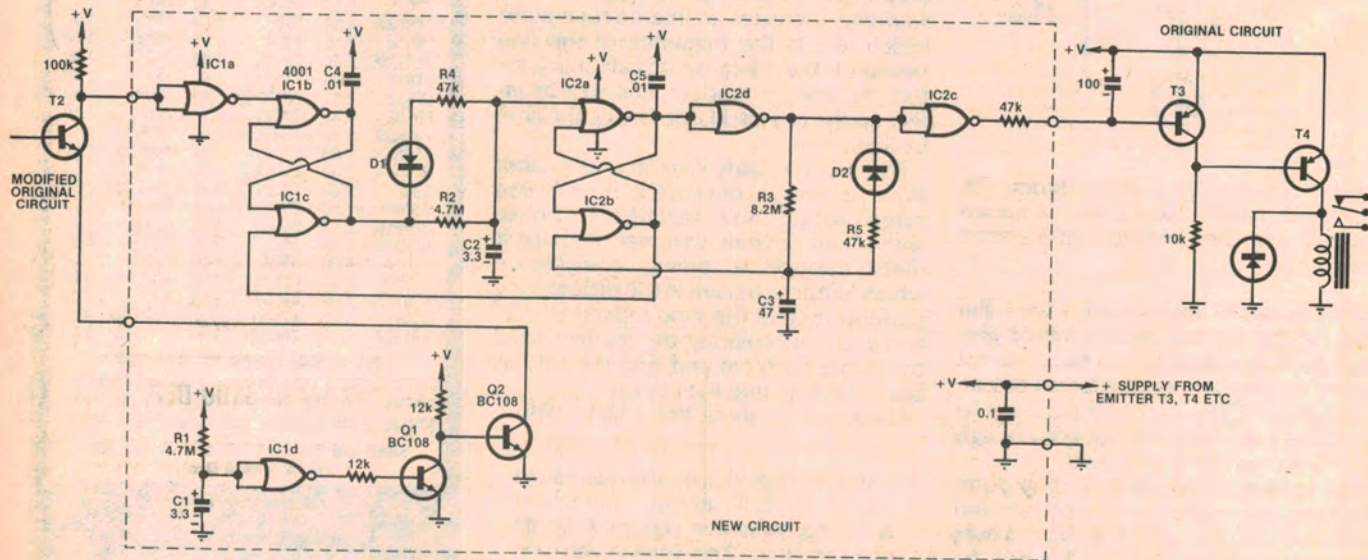


## Additions to 10GHz Radar Burglar Alarm provide useful delays



The following is a description of the additions which I have made to the 10GHz Radar Burglar Alarm, described in July, 1977. It provides exit and entry delays

together with an alarm timer. The modified circuit has been installed and it is running quite satisfactorily.

The ON/OFF switch is wired to supply

power to the alarm unit and this additional circuit. At switch-on, Q2 is off and prevents T2, in the alarm unit, from conducting. C1 then charges via R1 and after

## CIRCUIT & DESIGN IDEAS

about 25 seconds, the output of IC1d goes low, turning Q1 off and Q2 on, so that T2 can conduct. This 25-second period is the exit delay time, after which the circuit will sense movement.

When movement is detected, the collector of T2 goes low. This signal is inverted by IC1a and causes IC1b and IC1c to latch. The latch output is delayed by approximately 25 seconds before causing IC2a and IC2b to latch, giving time

for the property owner to switch the alarm system off. If the system is not switched off within 25 seconds, the alarm will sound and continue for approximately five minutes, after which time it will automatically reset. The system is then almost immediately ready for sensing the next movement.

Capacitors C4 and C5 ensure correct start-up conditions for the two latches. Gates IC1a and IC2c are provided for

correct interfacing into the original circuit.

These are the modifications which are to be carried out on the original circuit. Remove the two 47k collector resistors from T2 and replace with one 100k resistor as shown in the circuit. Unsolder T2 emitter from the PCB to allow connection to be made to the new circuit. Make connection to T3 base from the new circuit. Make connection to T2 collector from new circuit. Make positive and negative power supply connections to new circuit.

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