

IDEAS FOR EXPERIMENTERS

These pages are intended primarily as a source of ideas. As far as reasonably possible all material has been checked for feasibility, component availability etc, but the circuits have not necessarily been built and tested in our laboratory. Because of the nature of the information in this section we cannot enter into any correspondence about any of the circuits, nor can we produce constructional details.

Car alarm modification

Anthony Park of Middle Cove has come up with a modification to the car alarm project, ETI-084. It provides an entry delay system, removing the need for an external switch and making the alarm easier to install, more convenient to operate and more difficult for thieves to disarm.

As the original alarm design allows for unlimited exit time, the modification required is simple yet more sophisticated than the usual entry/exit delay systems. And best of all, the extra parts should only cost about \$1.

When the alarm is triggered pin 3 of IC1 goes low (about 0.6 V). This action initiates the entry delay provided by IC4, C8 and R13. C8, normally charged at 12 V, begins to discharge through R13 and after ten seconds or so the voltage at pins 2 and 6 of IC4 reaches 4 V.

This action sets pin 3 high,

thus turning on Q3 and allowing the relay to pulse via Q2 and also trigger off the 45 second reset delay as previously designed. After this delay time, pin 3 of IC2 goes high, switching on Q1 which resets IC1, followed by IC4 and IC2, completing the sequence.

The only change to circuit performance is that there is a delay time before the circuit is fully

reset due to the time required to charge C8. This should not pose any problems except when the alarm is initially turned on, taking about 17 seconds to charge C8 fully.

The purpose of Q4 is to disable Q2 so that the relay is not pulsed while C8 is charging, otherwise the horn would be beeping for 17 seconds when the alarm is first turned on.

This modification is very simple to install as only one track, from pin 3 of IC1, on the pc board has to be cut. All the other connections can be made directly by soldering wires on to the existing pc board. Veroboard can be used to house the extra components.

The alarm should have a ten second delay before the horn or siren begins to sound.

