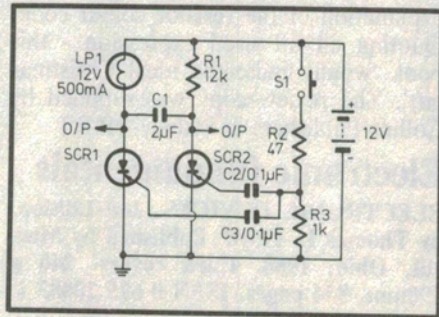


One button on-off

This circuit provides, in effect, an SCR based flip-flop. The switch output(s) can be used to drive a relay or can directly interface into the circuit being controlled. The circuit works in the following way:

At power-up, both SCRs are off, giving no voltage difference across C1, as both SCR anode voltages will be at the supply voltage. If S1 is operated, both SCRs are triggered, SCR1 by C3, and SCR2 by C2. However, SCR2 will not remain on after the pulse, due to insufficient holding current, where SCR1 will stay on as it drives the lamp, L1. The potential difference between the SCR anodes will now cause C1 to charge via R1.

If S1 is again pressed, both SCRs will be pulsed, as before, but as SCR1 is already on, only SCR2 will turn on as a



result. The effect of this is to apply a reverse voltage across SCR1, caused by C1 being switched by SCR2. This action will switch off SCR1 (and the indicator lamp).

At the end of the pulse, SCR2 will also turn off due to lack of holding current, and the circuit is ready for the next operation of S1.

Matthew Victor,
Dianella, WA

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