

SOFT SWITCH

■ PRADEEP G.

This circuit lets you switch on/off an AC lamp or any other load by pressing a normally open micro-switch. The current passing through the switch is very small.

For each press of the microswitch, the output of the IC, which is a CMOS J-K master-slave flip-flop,

toggles between high and low states. These digital variations are amplified by an npn transistor to drive a triac. The triac directly activates the AC lamp.

The 12V DC required for the circuit is derived from AC mains. BT136 is a general-purpose triac.

The circuit can be used as a staircase light switch. Connect two micro-

switches in parallel and fix one switch at the top of the staircase and the other at the bottom. When any of the micro-switches is pressed, the lamp will turn on and off alternately.

Since this circuit is not isolated from AC mains, don't touch it after connecting the power supply.

Note. Use of a Texas or ST make IC 4027 is recommended. ●

