



ANTI-COLLISION REAR LIGHT

■ ASHOK K. DOCTOR

During poor visibility, i.e., when there is fog, or at dawn or dusk, or when your vehicle gets stalled on a lonely stretch of a highway, this flashing light will provide safety and attract the attention of people to help you out. It uses high-brightness yellow LEDs.

The circuit uses a dual binary counter CD4520, quadruple 2-input

NAND schmitt trigger CD4093, 8-stage shift-and-store bus register CD4094 and some discrete components.

An oscillator is built around gate A, whose frequency can be varied through preset VR1 when required. The output of the oscillator is fed to IC1 and IC3. When the circuit is switched on, the oscillator starts oscillating, the counter starts counting through IC1 and the data is shifted on positive-going clock through IC3. As a result, the four groups

of LEDs flash one by one.

All the LEDs will then glow for some time and switch off for some time, and the cycle will repeat. Input pins 12 and 13 of the unused gate D must be tied to ground and pin 11 left open. Preset VR1 should be of cermet type and used to change the flashing rate of each group of LEDs.

The circuit works off regulated 12V. Assemble it on a general-purpose PCB and house suitably. ●

