

Christmas Lights Flasher

Made in 1979, published in December 1980 Everyday Electronics.

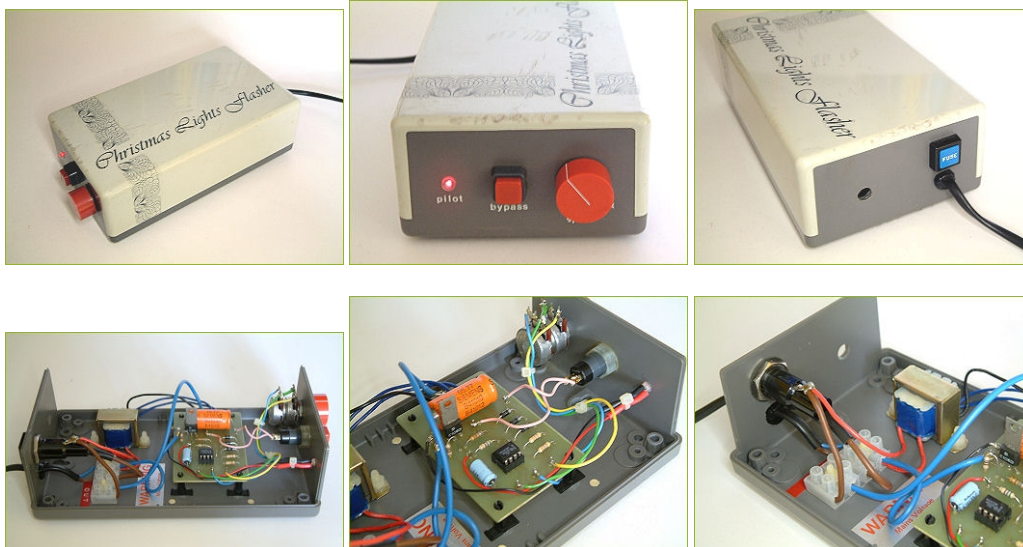


Every hobby electronics enthusiast needs a Christmas lights flasher and this project was my effort at perking up the Yuletide festivities. It came too late for 1979's Christmas edition of EE and was held over for a year. Mixing mains electricity with low voltages didn't exactly come naturally to me but I'd sussed out the principles of sharing a d.c. rail with the a.c. mains, hoping that I didn't mix anything up along the way...

I used a C106 thyristor at mains voltage to drive a chain of lights directly. The rectifying action of the thyristor also meant that the bulbs would last a lot longer as they were only conducting on half an a.c. cycle. Some said that the insulation on small transformers wasn't good so this maybe wasn't the best way of mixing a.c. and d.c. voltages. Safety was the key issue so I built everything on a p.c.b. mounted on four nylon pillars for easy removal. Today I'd build the whole lot on a single board.

I went to great lengths to insulate it properly, using an all-plastic Verobox and mounting everything with nylon nuts and screws. The 'bypass' switch was all-plastic as was the knob on the potentiometer. I colour-keyed the panel-mounting stuff in red. The sub-miniature l.e.d. was mounted with a new clear plastic clip (ElectroValue/ Maplin) rather than a boring black one, and by now I'd discovered proper mains cable retention clips which worked fine on the twin-core flex. The fuseholder popped out with a screwdriver. I wish they still sold them today.

I used white Letraset for the controls and IPC added more Letraset decoration. I'd got into my constructional stride by now and overall I was very happy with the way this project turned out. The original prototype (a bit scruffy) is still around today:



The article can be downloaded from www.alanwinstanley.com