

**AC FLASHER 1 CH. 220V. 700W.**  
CODE 113 **LEVEL 2**

This flasher circuit requires 220VAC. It is possible to connect 220VAC lamp up to max. 700W. Ideal of this circuit for advertising or warning lamps, shop-window or party room decorations.

**Technical specifications:**

- operating voltage: 220-240VAC.
- adjustable speed with potentiometer.
- load: lamp 220VAC, max. 700W.
- PCB dimensions : 1.96 x 1.22 inch.

**How to works:**

When connect the power source(220VAC) to circuit, it is fed to the parallel resistors through diode D1. The parallel resistors is adjust suitable current for circuit and diode D1 is rectifying AC voltage to DC voltage by having C3 as filter the current. The voltage will be transferred to the multi-vibrator (TR1 and TR2) is configured as frequency generator. TR1 and TR2 will alternately one by one. If TR1 works, TR2 and SCR do not work, so that lamp to be display. But if TR2 works, TR1 does not work. At the gate of SCR has the voltage from TR2, causing SCR to toggle on and the lamp will be light on. Speed of lamp blinking is depending on VR1, R2, R3, C1, C2. VR10K is used to adjust the speed of lamp blinking.

**PCB assembly:**

Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. All components with axial leads should be carefully bent to fit the position on the PCB and then soldered into place. Make sure that the electrolytic capacitors are inserted the correct way around. The LED has a flat spot on the body which lines up with the line on the overlay. Now check that you really did mount them all the right way round!

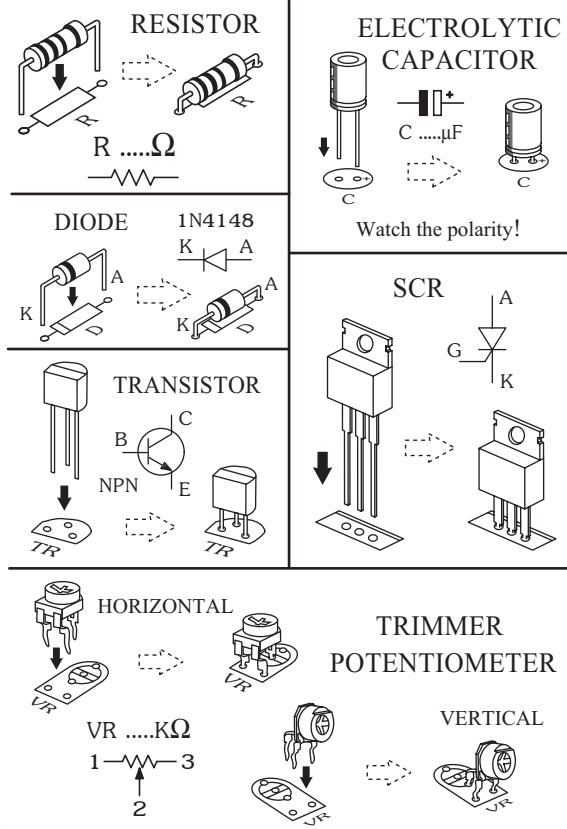
**Testing:**

Connect the lamp 220VAC 700W. to "OUT" position and putting PC board on the paper. Soldering AC wire to "IN" position and plugging on. Lamp will splash and stop alternatively. Plugging off prior to any adjustment and do not touch any components on PC board.

**Application:**

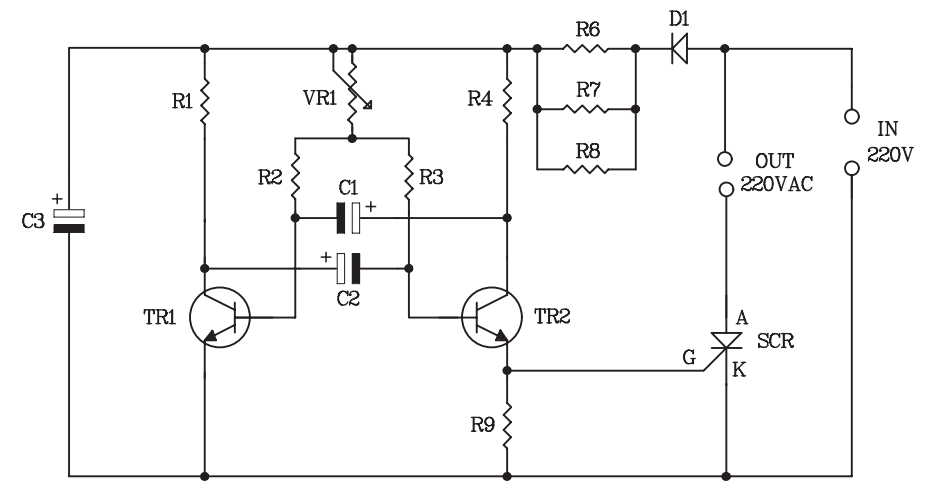
Connecting OUT with the lamp max. 700W or 140 sets of 5W per lamp. If connecting with over 300W lamp, putting heatsink at SCR. Using plastic box for shorted circuit prevention.

**Figure 1. Installing the components**

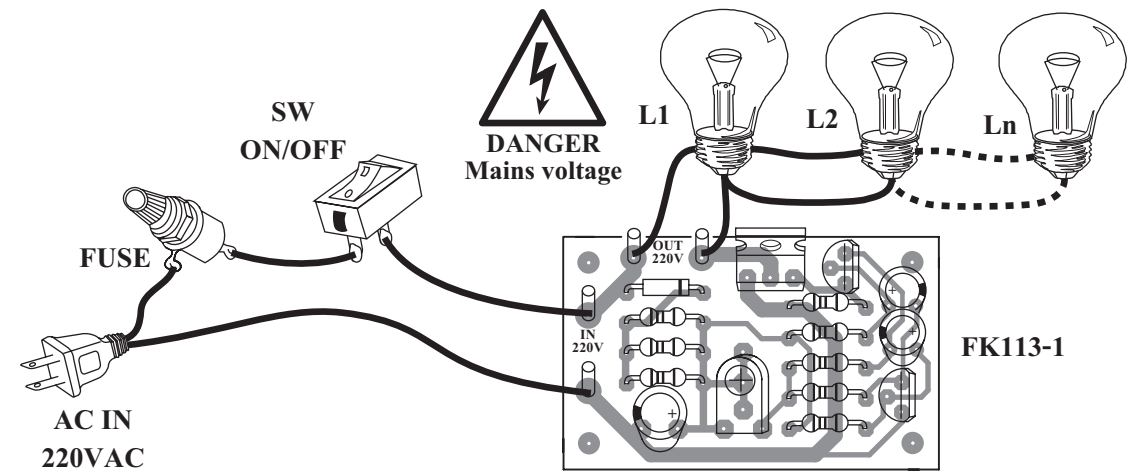


**Troubleshooting:**

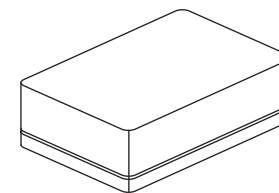
The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.



**Figure 2. The AC flasher 1 CH. 700W. circuit**



**Figure 3. Connections**



**NOTE:**

**FUTURE BOX FB03 is suitable for this kit.**

**NEW KIT SET**

CODE FK	DESCRIPTION	POWER
271	LIGHT ACTIVATE ALARM (COCK VOICE) WITH SPEAKER	3VDC
272	SPACE GUN 3 TONE WITH SPEAKER	9VDC