

XENON TUBE FLASHER
CODE 138

LEVEL 2

Flashing light effects for discotheques, etc. Can be adjustable for flash frequency.

Technical specifications:

- power supply: 220-240VAC.
- flash-tube use light output of the electrical energy : 3 watts/second.
- adjustable speed of flash with potentiometer.
- There is the switch start for test the circuit.
- PCB dimensions : 2.01 x 2.57 inch.

How to works:

The AC line 220-volt is fed to R1 and D1, and charged to electrolytic capacitors C1 and C2. When the voltage at C2 is higher than 88-volt, at the anode of ZD1 will have the voltage. This voltage is fed to the gate of SCR1, SCR1 will works. The voltage of C2 is fed to the ground. The on/off action of SCR1, caused by the pulsating signal applied to it, creates a rising and collapsing field in the primary winding of T1. That causes a pulsating signal, of opposite polarity, to be induced in T1's secondary winding.

The pulsating DC output at the secondary winding of T1 is trigger to the xenon tube. The xenon tube will flashing. VR1 is used to adjust the flash frequency.

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!

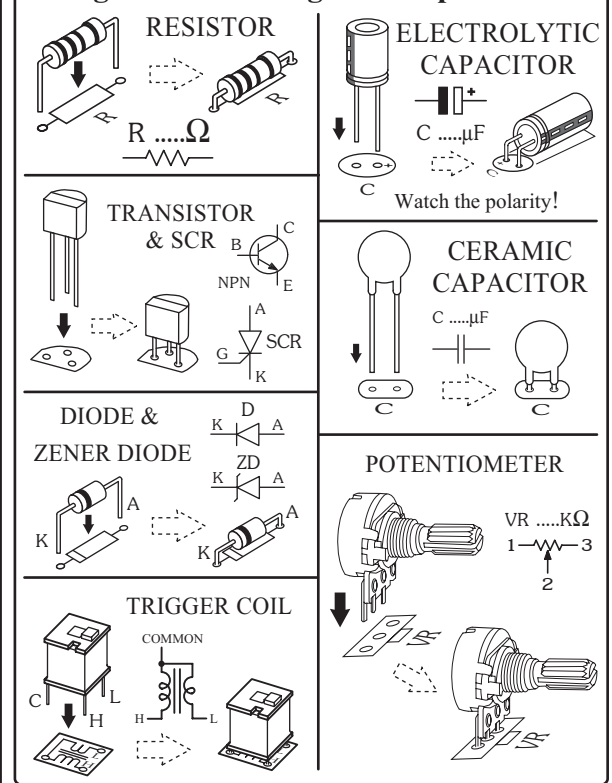
Testing:

Adjust the VR1 at "MAX" position. Connect the AC line 220-volt into "220V" point. The xenon tube flashing. Decrease the VR1, the xenon tube will slow flashing. If adjustable the VR1 at "MIN" position, the xenon tube is flash off.

Application:

If you want increase to the light-flash. Can be adjusted by altering the value of capacitor C1 from 22µF/330V to 47µF/350V or 100µF/350V. If you used to capacitor 100µF/350V should to altering the value of 2KΩ 5W to 1KΩ 10W. For ST point is used to connect the switch. When you not to use the dynamic buzzer and adjusted to VR1 at "MIN" position.

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.

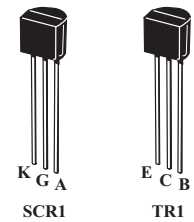
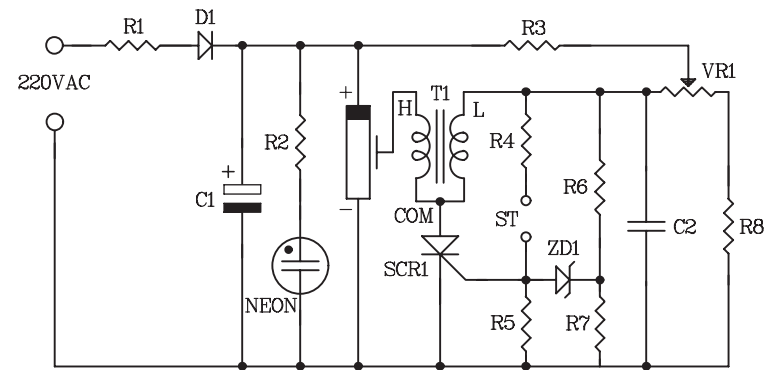


Figure 2. The xenon tube flasher circuit

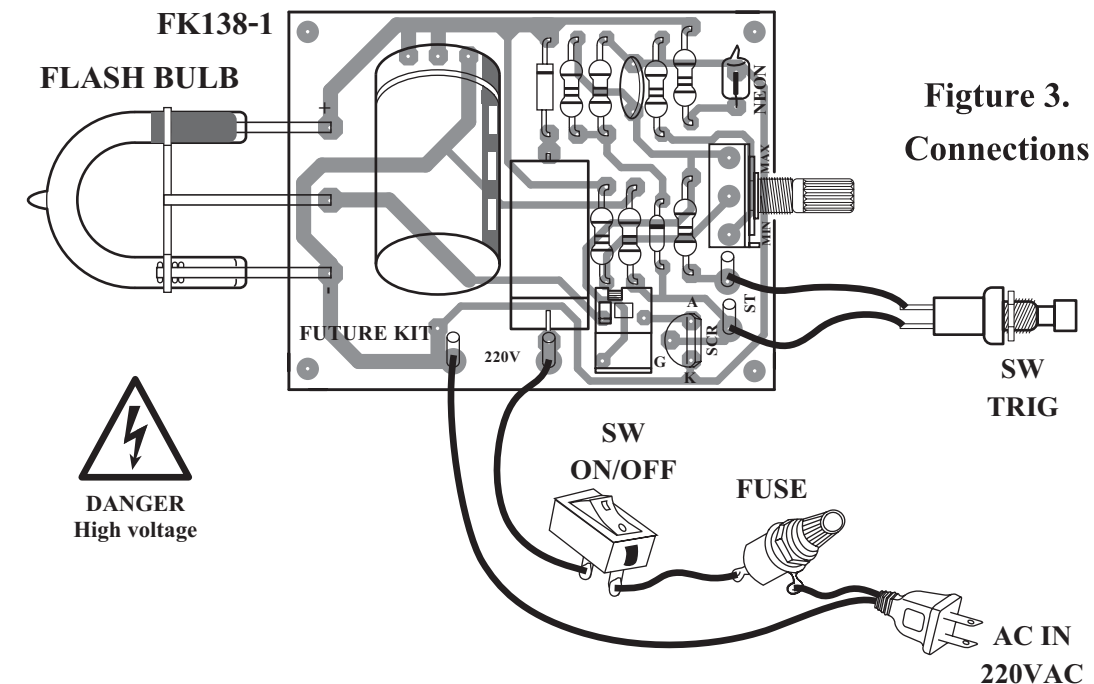
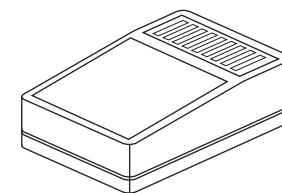


Figure 3. Connections



NOTE:
FUTURE BOX FB23 is suitable for this kit.

NEW KIT SET **NEW**

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