

## 6/10 CHANNEL SEQUENTIAL RUNNING DISCO LIGHT – [K-80]

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### General Description

This low cost simple to build Disco & sequential running light will find many uses in the days of the festival, the heart of the circuit is IC 4017, the power handling capability of the circuit when it is used with lamps is 800 Watts per channel, 4800 Watts in total which is more than enough for most professional applications.

### Adjustments

This kit does not need any adjustments, if you follow the building instructions.

### Construction

Solder in place the resistors, the capacitors making sure that they are inserted correctly with respect to their polarity and finally solder in their places the transistors and the LED's making sure that you insert them correctly and that they are not overheated during soldering.

### How it Works

The heart of the circuit is decade counter CMOS IC 4017 which drives the transistor which in turn fires the triac. The IC 555 working as oscillator in astable mode feeds clock to IC 4017, The counter gives output pulses which drives the transistor which in turn fires triac.

The output Q6 of IC 4017 is fed to the reset pin no 15 of 4017 to repeat the cycle again & again.

The no of channels can be selected as per the below given table

No. of Ways	Connect pin 15 of 4017 to pin... of 4017
7	6
8	9
9	11
10	Ground

The number of output channels in this circuit is also selectable with the help of a rotary switch.

The circuit can operate in Disco mode also, by connecting speaker terminal to audio transformer given, & switching S1 to audio mode.

### Circuit Diagram

### Technical Specifications - Characteristics

Working voltage : 230V AC

Output channels : 6/7/8/9/10 SELECTABLE

Per channel load : 800 W [Maximum – with heatsinks]

### Warning

VISHA kits are sold as stand alone training kits.

If they are used as part of a larger assembly and any damage is caused, our company bears no responsibility.

Please do not forget to use suitable heatsinks on the TRIAC's if you are planning to use the circuit with such heavy loads for prolonged periods.

Please consider the whole circuit as if it were at mains potential while it is connected to 220 V to avoid any serious and possibly fatal accidents.

### CAUTION:

This circuit works from the mains and there is 220 VAC present in some of its parts.

Voltages above 50 V are DANGEROUS and could even be LETHAL.

- DO NOT leave mains leads exposed. All mains leads should be well insulated.
- DO NOT work with wet hands.
- When you are testing a circuit that works off the mains wear shoes with rubber soles,
- Stand on dry non conductive floor and keep one hand in your pocket or behind your back.

A carefully built and well insulated device does not constitute any danger for its user.

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