

# LED RUNNING LIGHT 10 DOT (ROUND) CODE 116 LEVEL 1

The LED running light circuit is classified as one of beautiful decorations which be lighted sequentially in circle with a built-in speed control acaitable for the adjustment as well.

## **Technical specifications:**

- power supply: 6-12VDC.
- consumption: 8mA max.
- adjustable speed with potentiometer.
- PCB dimensions: 2.49 x 2.01 inch.

### How to works:

The square ware which oscillated by IC 555 is adjusted the frequency by VR10K and then transmitted to IC 4017 which control all ten output spots letting LED to function sequentially from the first to the tenth.

# PCB assembly:

Shown in Figture 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 power supply 6 to 12V to circuit. With the positive pole is connected to "+" point and the negative pole is connected to "-" point. ALL LED will display chasing. Adjusting variable resistance 10K, All LED will display according to adjusted speed.

Figure 1. Installing the componants

RESISTOR

RESISTOR

RESISTOR

CAPACITOR

Watch the polarity!

IC 555

JUMPER

OR

LED

Watch the position of the notch!

TRIMMER POTENTIOMETER

VR ....ΚΩ

VERTICAL

1-W-3

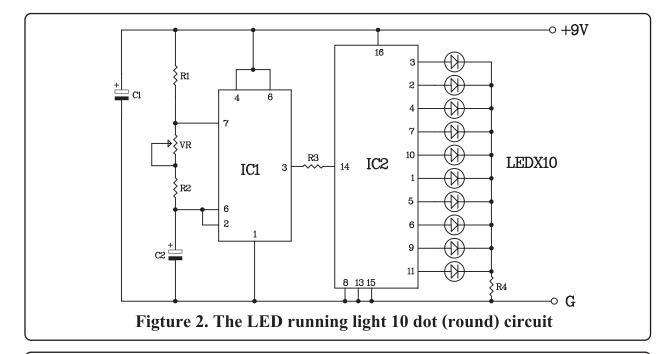
VERTICAL

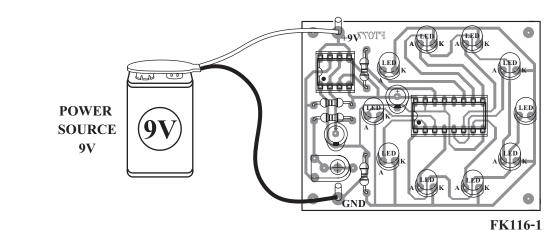
HORIZONTAL

1-W-3

#### **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.





**Figture 3. Connections** 



