

TWO WAY V.U. METER 10 LED
CODE 102 **LEVEL 1**

Two way V.U. meter 10 LED circuit is different from other circuit having 2 directions of each 5 LEDs. This circuit is specially designed for no need power supply, few components, easy application, lower-price and durable.

Technical specifications:

- No need power supply.
- Indication : 10 LEDs (5 LEDs per channel).
- Scale at 8 ohm load : 5 to 30 Wrms.
- PCB dimensions : 2.89 x 0.93 inch.

How to works:

The sound signal from speaker terminal is fed to LED1 to LED10 through capacitor C1 which C1 is input coupling capacitor and block DC. Diode D1 as discharged of C1. If there is high voltage at C1, coupling will be more too caused more LEDs display. But if there is low voltage, coupling will be less, few LEDs display respectively. Such as: 5 volts signal makes only 2 LEDs display for each direction, totally 4 LEDs. But if there is the higher signal over 10 volts, all LEDs is displayed.

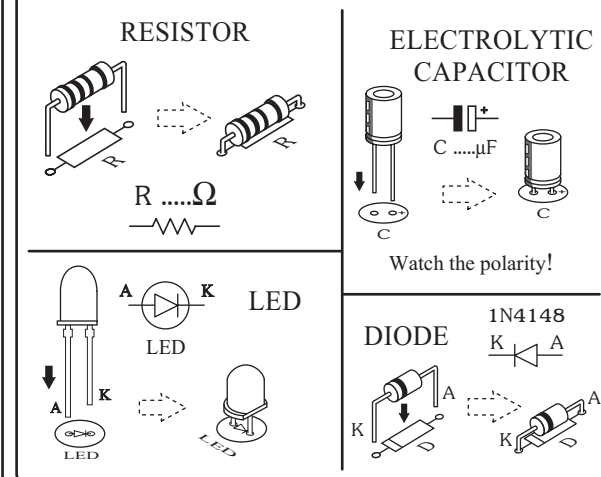
PCB assembly:

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:

Connecting "IN" point to the speaker terminals. When the audio signal is lower, LED displays will displayed only one or none LED displays. When the audio signal is higher, LED displays will displayed all LEDs by ranking from the first to the last LED.

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.

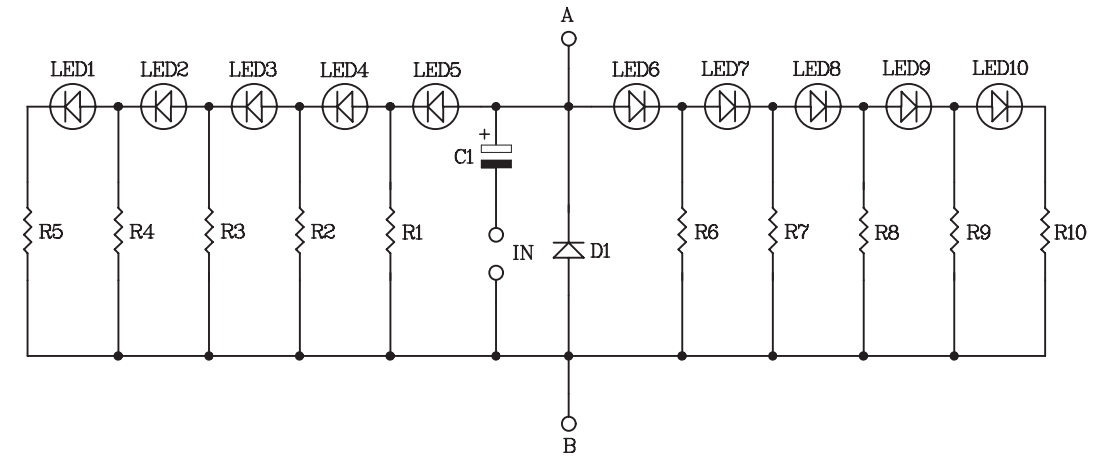


Figure 2. Two way V.U. meter 10 LED circuit

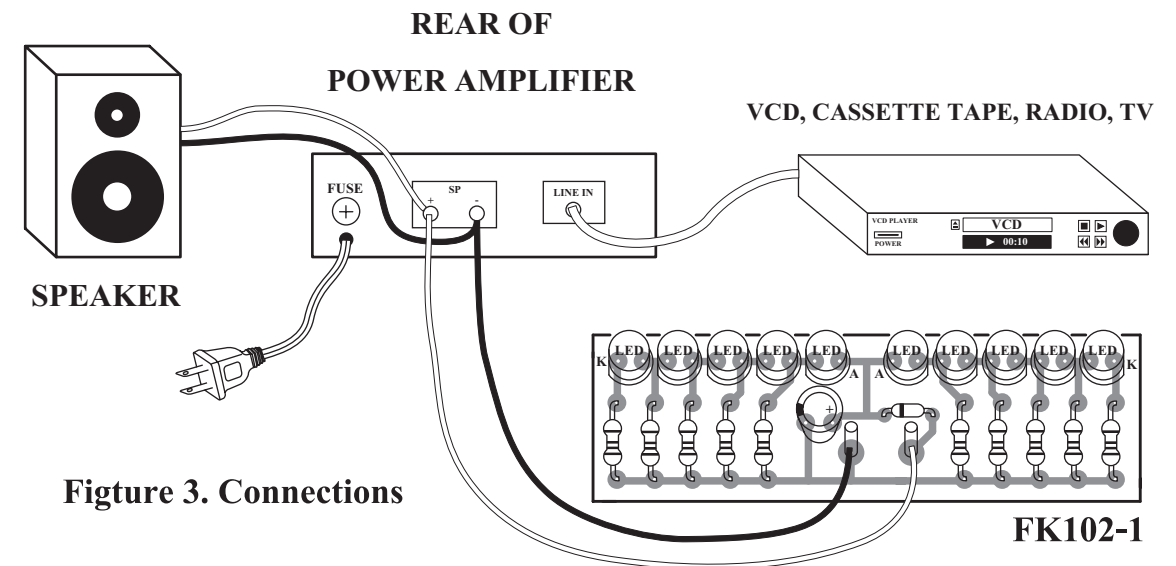
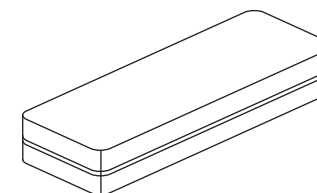


Figure 3. Connections



NOTE:

FUTURE BOX FB02 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