

WIRELESS V.U. METER 15 LED
CODE 103 **LEVEL 1**

The specialty of this wireless V.U. meter circuit over normal V.U. meter is no wiring required so it reduces the difficulty of installation. This circuit principle is to have microphone as a receiver. Then amplifier to V.U. meter set for showing the result by LED.

Technical specifications:

- power supply: 9-12VDC.
- consumption: 150mA max.
- adjustable sensitivity with potentiometer.
- Indication : 15 LEDs.
- PCB dimensions : 3.45 x 2.18 inch.

How to works:

This circuit uses condenser microphone as a receiver and signal from microphone is fed to TR1 through C1 for amplifying and then the signal will be fed to TR2 through C2 for re-amplifying. Magnified signal will be fed to V.U. meter through D1 set to drive the signal LED2 to LED15 by TR3 to TR9. LEDs in this circuit will run out by 2 ways because once transistor drives 2 LEDs. "IN" position is used for connect with the speaker terminal directly without microphone.

PCB assembly:

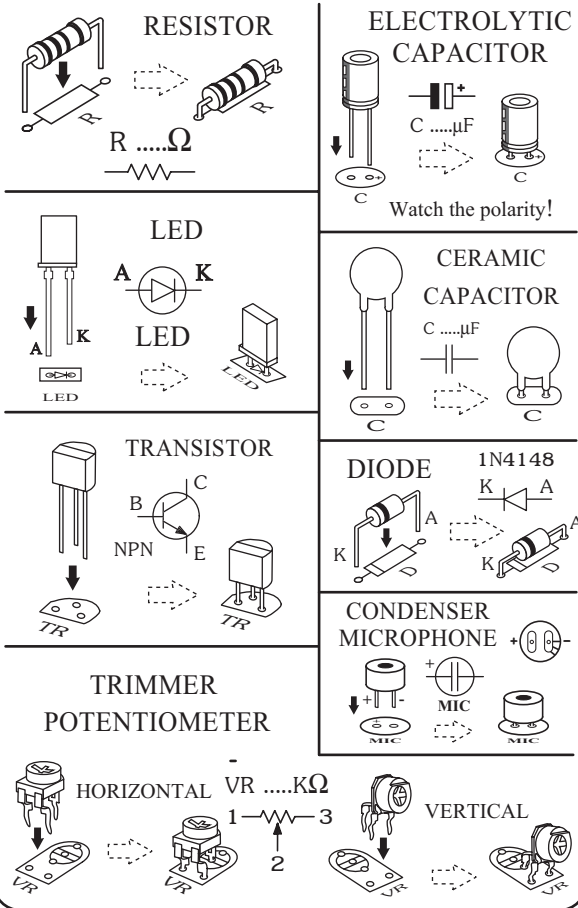
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. All components with axial leads should be carefully 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 power supply 12V to circuit and increase VR100K slowly until middle LED will turn on. Testing by speaking into microphone. LED1 will run from the middle to left and right as you speak.

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.

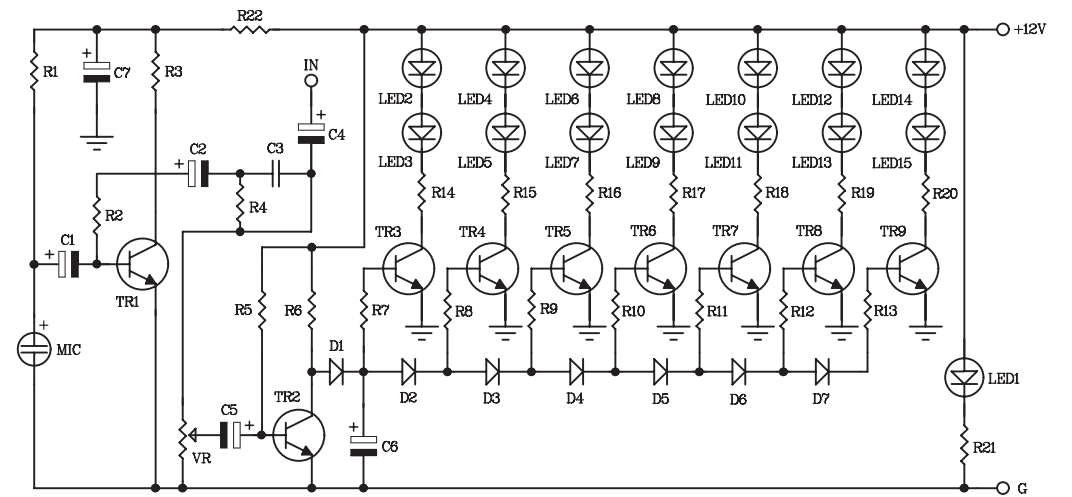


Figure 2. Wireless V.U. meter 15 LED circuit

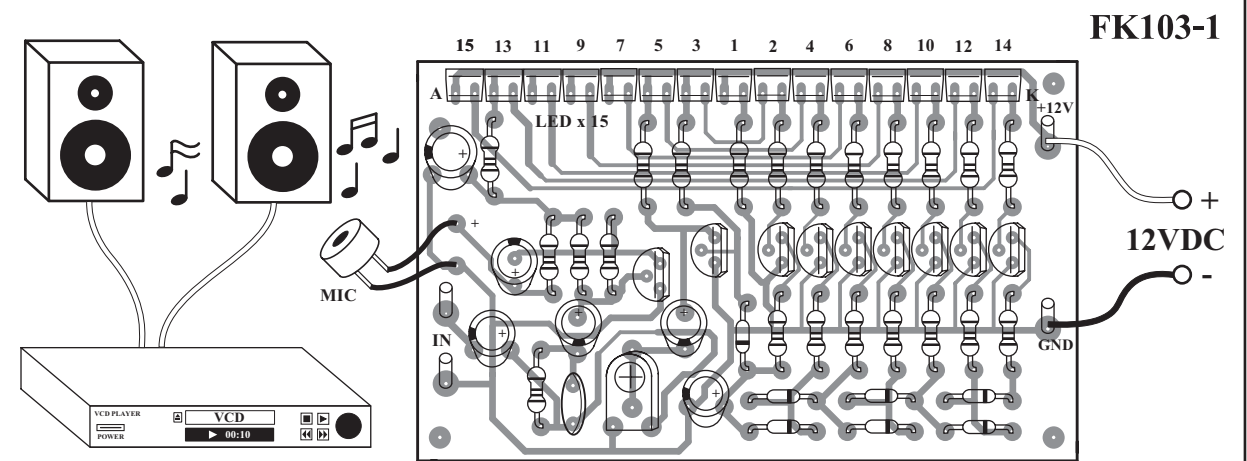
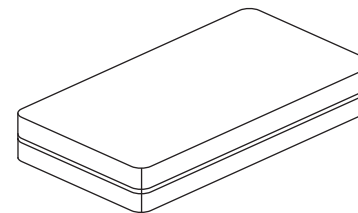


Figure 3. Connections



NOTE:

FUTURE BOX FB17 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