FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

RINGING SIGNAL LIGHT 5 LED
CODE 325   (LEVEL 1)

This ringing signal light circuit is alarm light when has the ringing signal into telephone. It is suitable for the silent place, hospital etc. It is a small side and no need power supply, causing easy for installing and using.

Technical specifications:

- no need power supply
- display : 5 LED's super bright
- this circuit is connected parallel with the telephone line.
- PCB dimensions : 1.38 x 2.13 inches.

How to works:

Under normal condition that telephone is hanged up, TEL line has the voltage about 50 VDC, but if the telephone is picked up, TEL line has the voltage about 15 VDC. The both voltage is DC voltage, causing this voltage does not coupling capacitor C1 and the circuit is not working. But when has the ringing signal to the telephone, the voltage at TEL line has the voltage about 90 to 110 VAC, this voltage will be coupling capacitor C1 to a bridge rectifier (D1 to D4). A bridge rectifier converts the AC voltage (ringing signal) into a DC voltage. In this time, LED will illuminate follow the ringing signal.

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 TEL line from telephone wall to "TEL IN" point and telephone to "TEL OUT" point. When have the ringing signal in TEL line, All LED illuminate follow the ringing signal.

Using:

This circuit is a small side and no need power supply, causing easy for installing into box and using. You can use the red PVC clear to hide the face of all LED.

Figure 1. Installing the componants
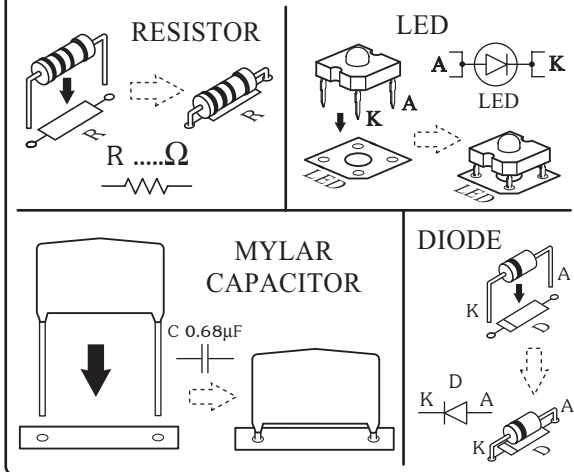
Troubleshooting:

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.
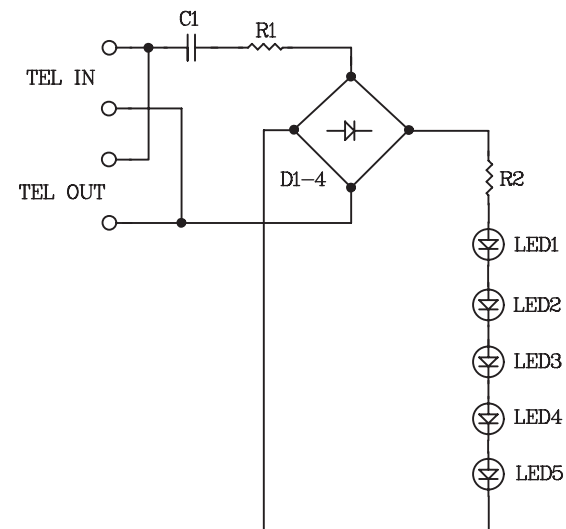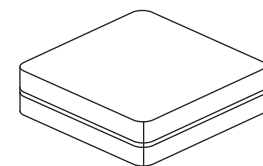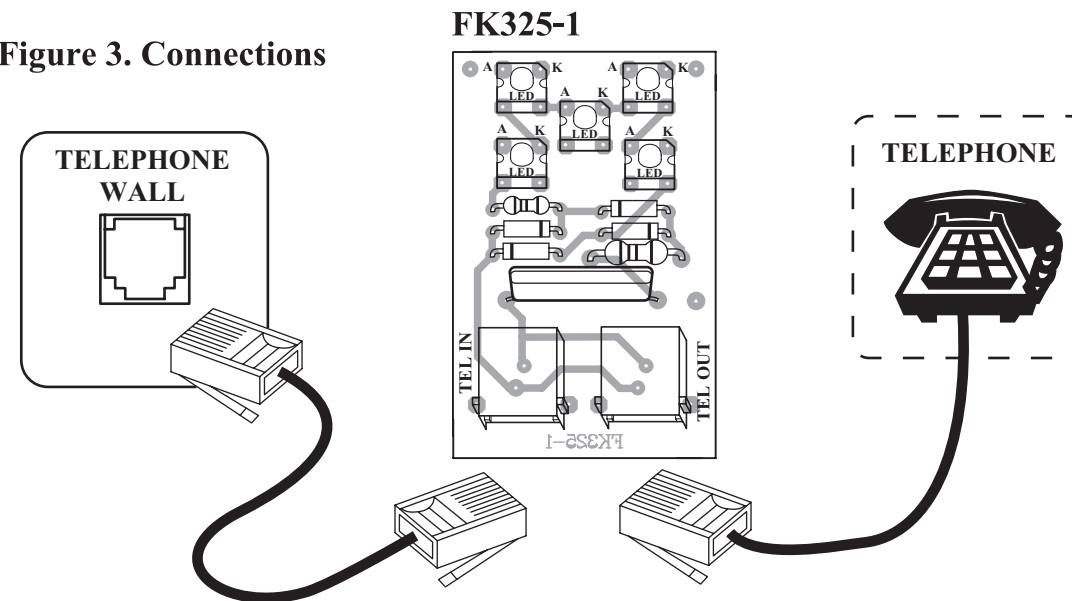

Figure 2. The ringing signal light 5 LED circuit

Figure 3. Connections

FK325-1

NOTE:

FUTURE BOX FB01 is suitable for this kit.

NEW KIT SET

CODE FK	DESCRIPTION	POWER
156	MINI TRAFFIC LIGHT 3 LED	9-12VDC
157	TWO WAY CHASING LIGHT TWO COLOUR 10 LED	9-12VDC
158	STROBOSCOPE 220V	220VAC
159	SHAKING DICE	9-12VDC
160	RANDOM NUMBER GAME 1 DIGIT	9-12VDC
273	MUSIC DOOR (WITH MAGNATIC SWITCH)	3VDC
274	MINI ORGAN 13 TONE (WITH MAGNATIC SWITCH)	9VDC
325	RINGING SIGNAL LIGHT 5 LED	NONE
672	MINI MEGAPHONE (WITH SPEAKER)	4.5-12VDC