FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

PHONE RING SIGNAL LIGHT
CODE 321

LEVEL 1

The circuit is suitable for high disturbance or noises area which disturb hearing the phonebell ringing. If having the phone call, the light will display at the same rhythm of ringing bell.

Technical specifications:

- operating voltage: 220 to 240VAC.

- load: lamp 220VAC., max. 300W.

- PCB dimensions : 2.25 x 1.90 inches.

How to works:

C1 coupling the ringing bell through diode D1-D4, R2 to IC1 which is opto coupler (light connector) which incharges for phone light and 220VAC voltage separation. When the phone ringing, IC1 works, TR in IC1 will conduc current, making relay and TR1 works, TR2 is connected to control voltage not over 12V, while C5 and R11 can reduce 220V is lower. D5 and D8 rectified DC, and C4 is filter.

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. If the pins will not enter the holes with ease, use a small drill to slightly enlarge the opening. 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. Some components are particularly sensitive to heat (ie: Transistors, IC's, diodes etc.) extra care must be taken to only apply the iron for as little time as possible, using a pair of pliers to grip the leads will help conduct heat away. Trim components leads with wire cutters to prevent excess lengths causing a short circuit. Now check that you really did mount them all the right way round!

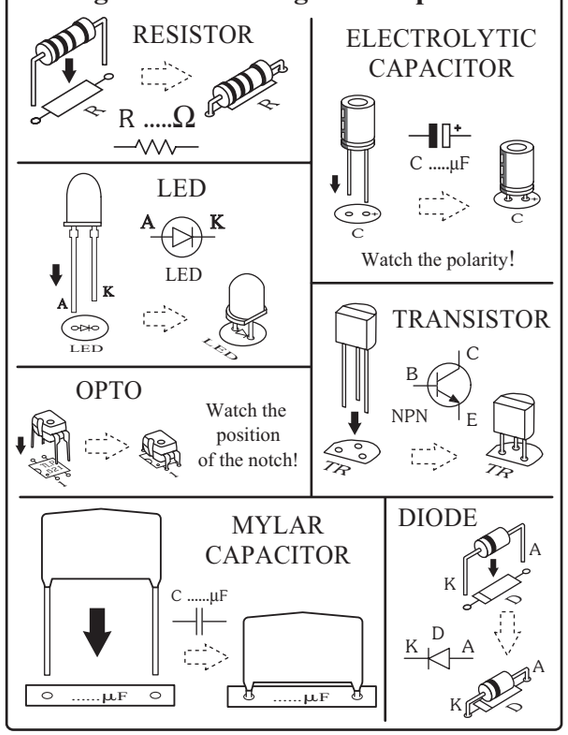
Testing:

Connect all componant following figure 3. Apply the power source 220VAC. to the circuit. And then making a call, the circuit will run as phone ringing while light bulb will display too.

Application:

This circuit can be applied for bulb lesser than 300W. or 220VAC. alarm signal.

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.

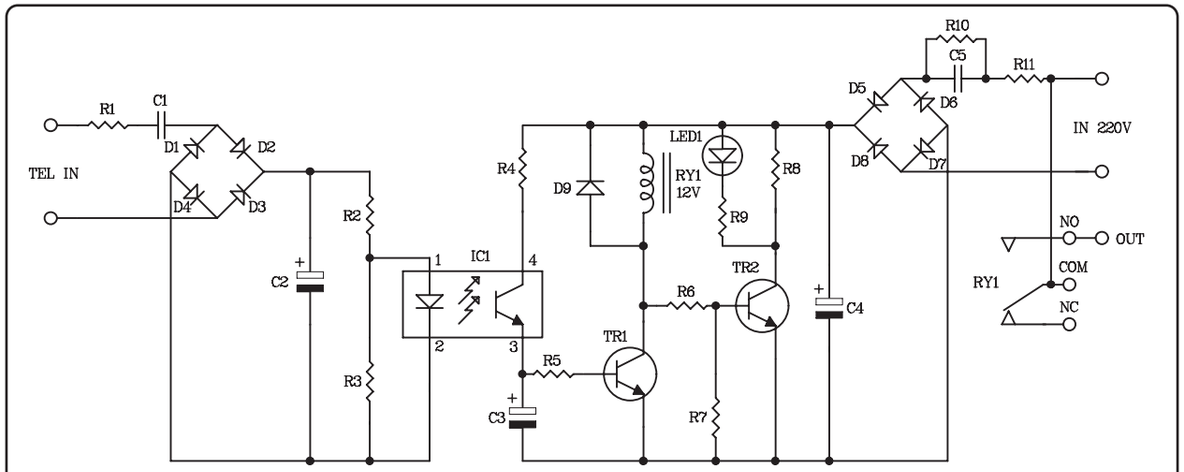


Figure 2. The phone ring signal light circuit

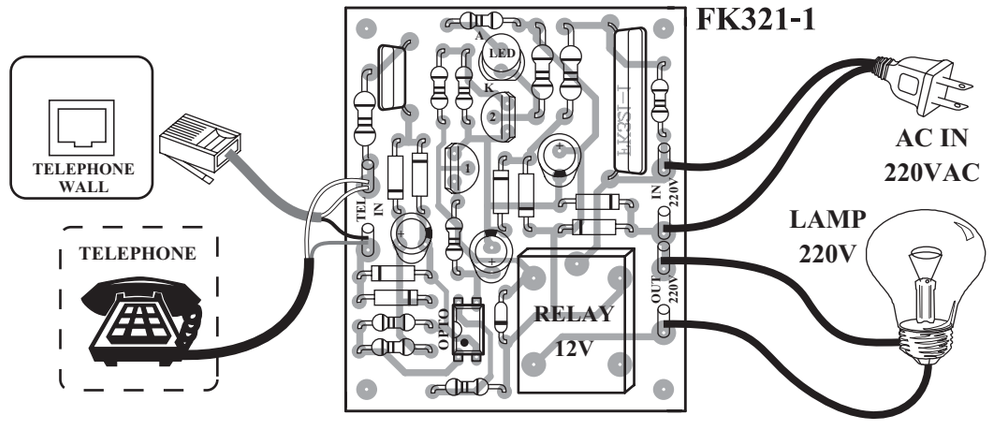
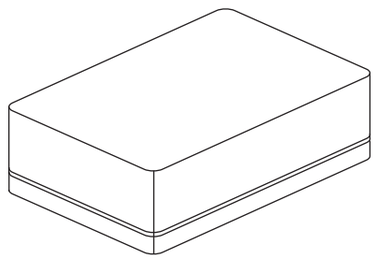


Figure 3. Connections



NOTE:

FUTURE BOX FB04 is suitable for this kit.

NEW KIT SET NEW

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