

TELEPHONE "IN-USE" INDICATOR

CODE 318

LEVEL 1

Telephone "IN-USE" indicator circuit has LED to display the result by lighting on when the phone is picked up.

Technical specifications:

- no need power supply
- display : 2 LED's 3 mm.
- this circuit is connected series with the telephone line.
- PCB dimensions : 0.77 x 0.81 inch.

How to works:

Connecting this circuit with telephone line by series type. Whenever the telephone is picked up, current will transfer to LED, so LED will display. If connecting this circuit with plus type telephone, there would be acrossed voltage when calling out. So, it requires 1 additional LED by turning in opposite side to the first one.

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. 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!

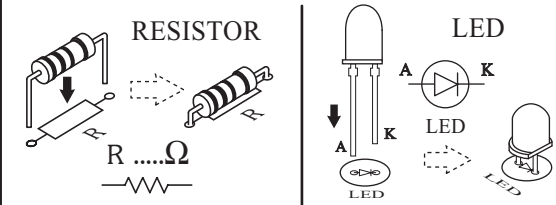
Testing:

Connecting according to the figure 3 by connecting telephone line by series type to any poles of telephone set. Now LED does not display. Picking up telephone, 1 of LED will then display. Changing the pole, voltage LED will shut down while other displays instead.

Application:

LED will remain display on actual application. If many telephone sets are connected, adding more circuits and following the above instruction.

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.

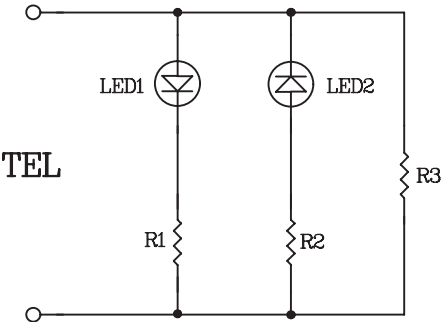


Figure 2. The telephone "IN-USE" indicator circuit

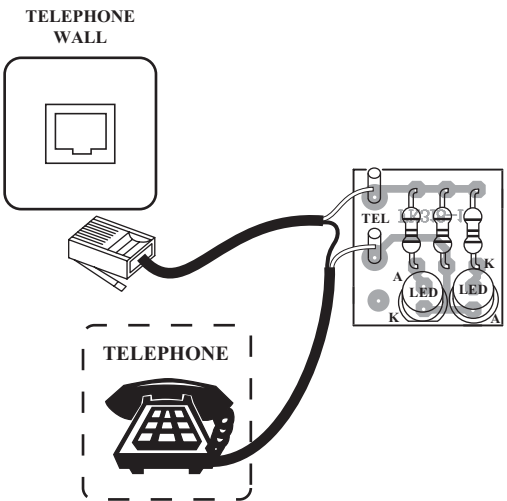
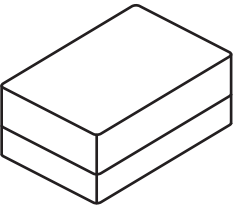


Figure 3. Connections

FK302-1, FT254



NOTE:

FUTURE BOX FB11 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