

ELECTRIC SHOCK (LOW POWER)
CODE 901 **LEVEL 1**

This circuit is an electronic circuit that adapting 9 volts from battery to high frequency voltage. If we touch this adapted voltage, we would feel shorted but it is harmless due for less high current resistance, it would not consume much current if "T" point is not contacted and do not have to switch on or off the circuit.

Technical specifications:

- power supply : 9VDC.
- consumption : 5mA max.
- PCB dimensions : 2.33 x 1.20 inches.

How to works:

When we touch "T" point, current will transfer through our hand, R3 to the base of TR1, TR1 will then transfer current next to both TR2 and TR3, the collector of TR2 and TR3 will feedback the current to the base of TR1 through C1 and R2 in order to starting high frequency oscillation. This frequency is depending on C1, R2 and output. Voltage at L will be inducted to H which has high voltage and will transfer at T. The base of TR1 now does not have voltage to support, so that TR1, TR2, TR3 and donot work.

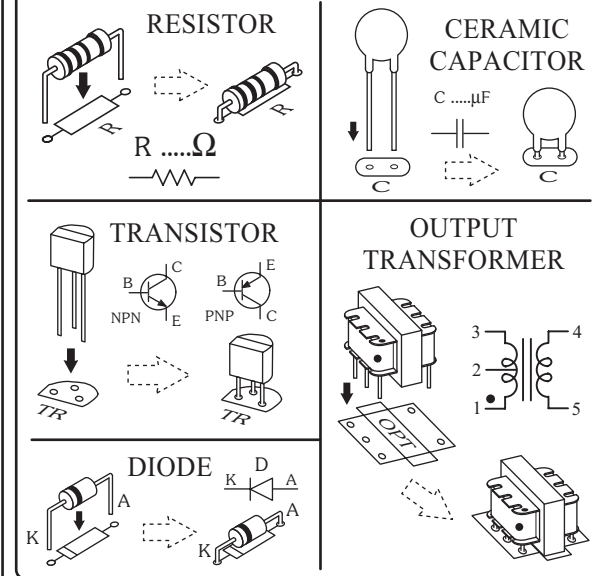
PCB assembly:

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:

Following the procedure according to the figure. Setting the meter (moving coil type) with 250VAC scaling by measuring 25 volts at both T points. If meter hand does not move, replacing meter pole and measuring again. If no meter, easily testing by touching at both points.

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.

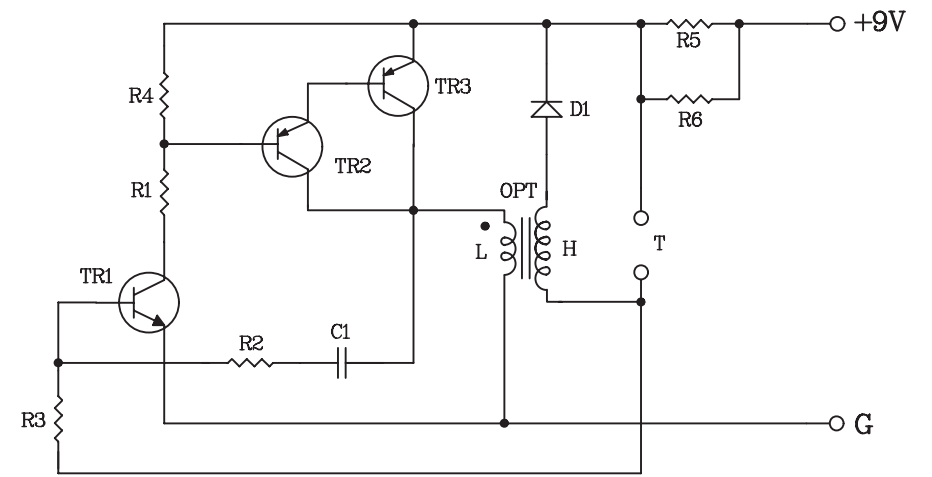
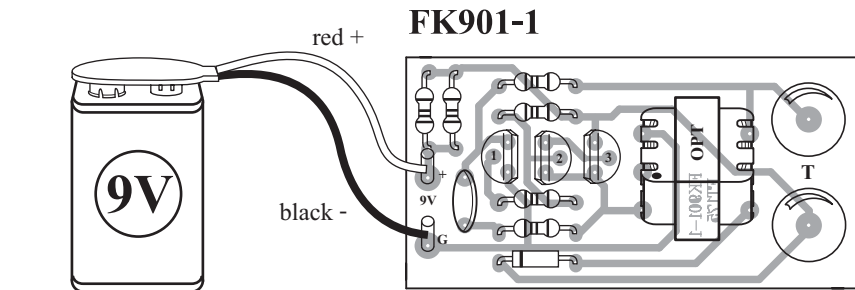
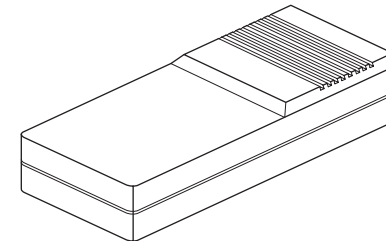


Figure 2. The electric shock (low power) circuit

Figure 3. Connections



POWER SOURCE
9V



NOTE:
FUTURE BOX FB08 is suitable for this kit.

NEW KIT SET

CODE FK	DESCRIPTION	POWER
168	NO SMOKING FLASHER 46 LED	9-12VDC.
169	DANCING ROBOT FLASHER 33 LED	9-12VDC.
170	DANGER FLASHER 42 LED	9-12VDC.
171	TWO LAMP FLASHER	3VDC.
172	THREE STEP FLASHER 19 LED	9-12VDC.
173	HALLOWEEN PUMPKIN FLASHER 23 LED	9-12VDC.
174	5x7 ANIMATED LED SIGNBOARD	3-5VDC.
816	VARIABLE REGULATOR 0-50V. 3A.	50VDC.
817	TRANSFORMERLESS POWER SUPPLY 6-9-12V 50mA	220-240VAC.