

WATER SENSOR ALARM
CODE 910

LEVEL 1

The water sensor alarm is useful for saving money from overflow water.

Technical specifications:

- power supply : 9VDC.
- consumption : 30mA max.
- PCB dimensions : 1.59 x 1.07 inches.

How to works:

TR1 and TR2 are connected to oscillate multivibrator frequency. The frequency is transmitted through C4 to the base of TR4 to be amplified throughout the speaker. TR1, TR2 and TR4 will function whenever TR3 works. TR3 functions by controlling of the base of TR3 to short the current at the collector of TR3 to the ground. Therefore sound generator set function and transmit to the amplifier throughout the speaker.

PCB assembly:

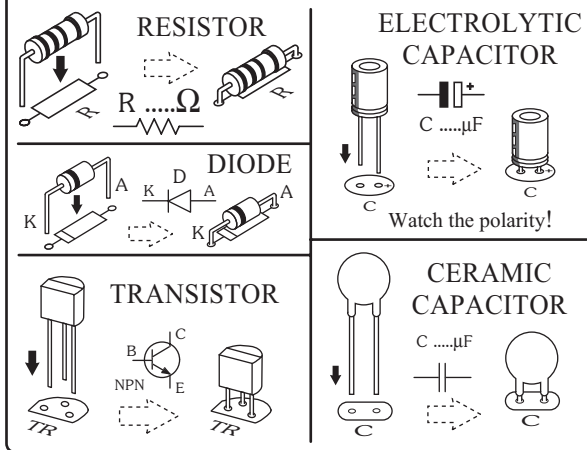
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease, 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:

Supply the power supply to the circuit, short "S" point and the sound will be heard throughout the speaker. Install S pole to the water tank above water level. When the water level is at S pole, the circuit will transmit the warning alarm. The position pole can be connected passed on the switch to be more convenience application.

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.

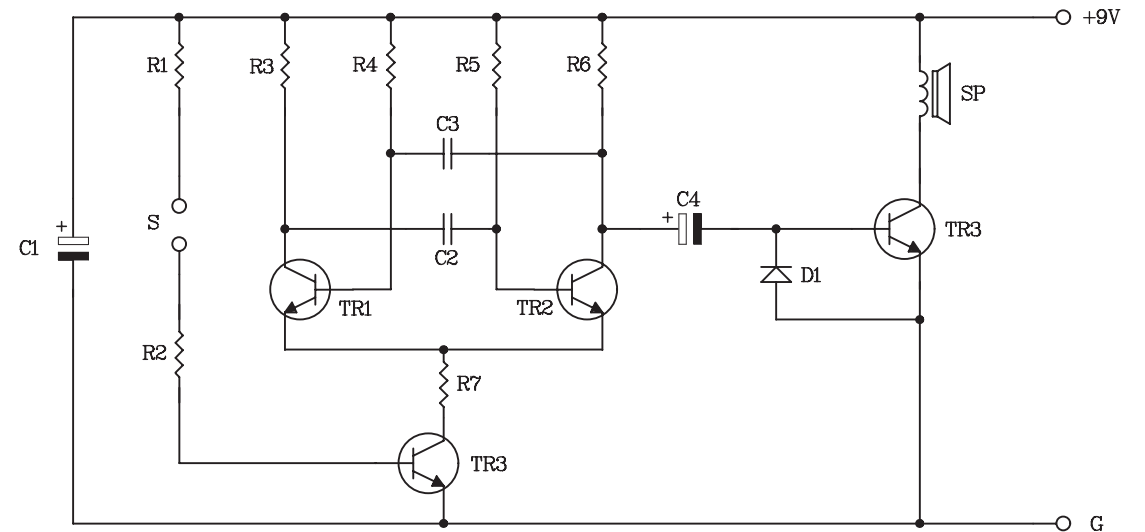
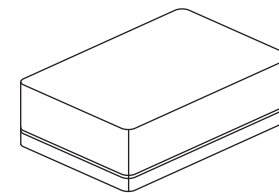
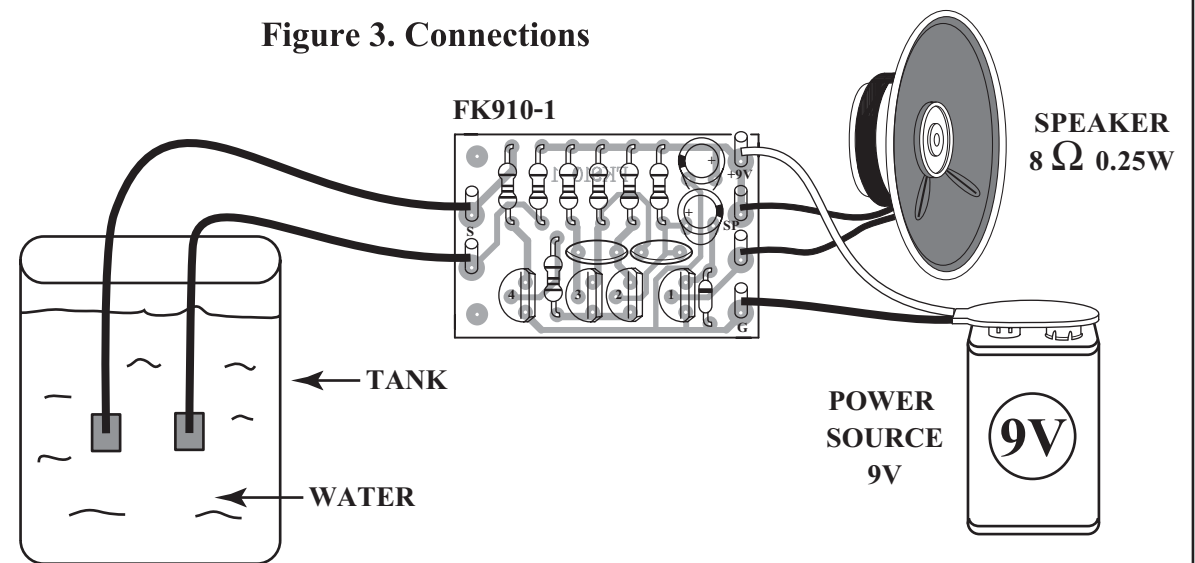


Figure 2. The water sensor alarm circuit

Figure 3. Connections



NOTE:

FUTURE BOX FB03 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.