FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

FUTURE KIT

ALARM TIMER 1-240 MIN
CODE 914

LEVEL 1

This circuit is a alarm clock circuit. There is alarm sound when finish the time. Potentiometer and switch are used for setting the alarm clock.

Technical specifications:

- power supply : 9VDC.
- consumption : 23mA.(working), 2mA.(stand by)
- range : 22 sec. - 4 hour.
- PCB dimensions : 2.43 x 1.53 inches.

How to works:

IC1 oscillates and divides the frequency. Pin 9, 10 and 11 are connected resistor and capacitor for setting frequency. This frequency is controled by VR1. Pin 1, 2 and 3 are fed to selector switch for select the timer clock. When timer is finished, at "TAP" point will has the voltage from IC. This voltage will be divided two section : first section is fed to the frequency generator though D1 for stop the frequency the genetor. rest section is fed to the base of TR1 to be depanding by R4, R5, C2. TR2 and dynamic bazzer and then you will hear alarm sound

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 the power supply 9 volts to the circuit. Adjust potentiometer max. counterclockwise.

-Slice switch to "1" position and then approximate 22 seconds, there is the alarm sound from dynamic buzzer. Disconnect the power supply from circuit.

-Slice switch to "2" position and then connect the power supply to the circuit. Approximate 45 seconds, there is the alarm sound from dynamic buzzer. Disconnect the power supply from circuit.

-Slice switch to "3" position and then connect the power supply to the circuit. Approximate 90 seconds, there is the alarm sound from dynamic buzzer.

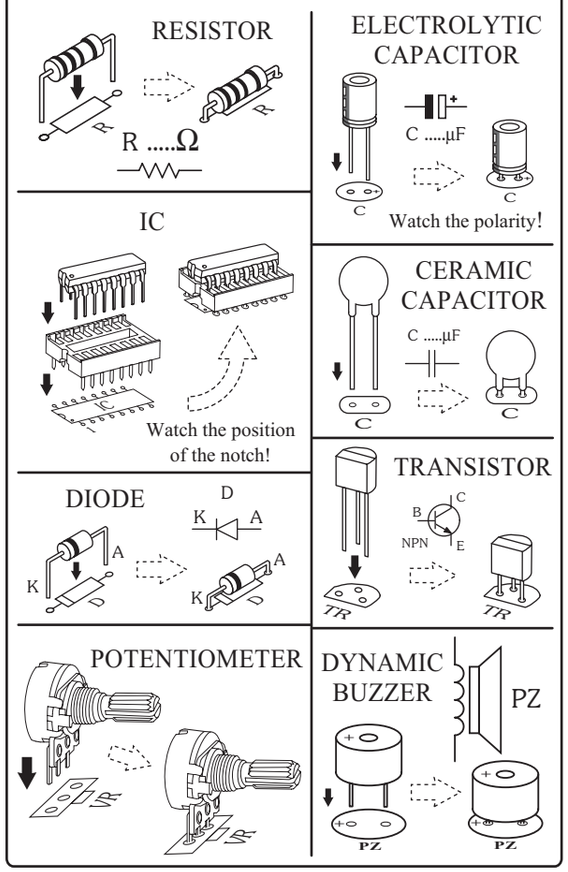
Using of switch:

"1" position can be adjusted the timer (VR) from 22 seconds to 1 hours.

"2" position can be adjusted the timer (VR) from 45 seconds to 2 hours.

"3" position can be adjusted the timer (VR) from 90 seconds to 4 hours.

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.

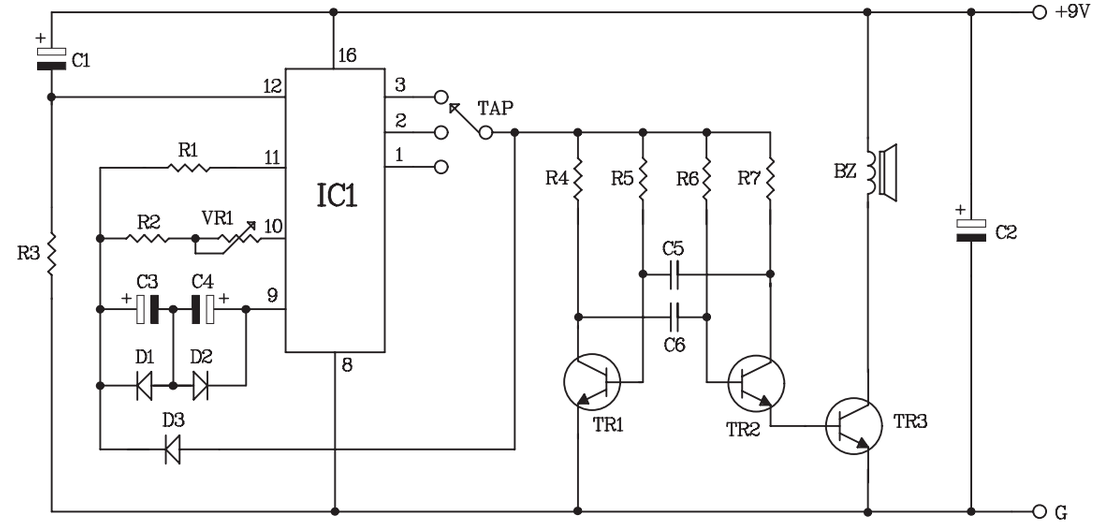
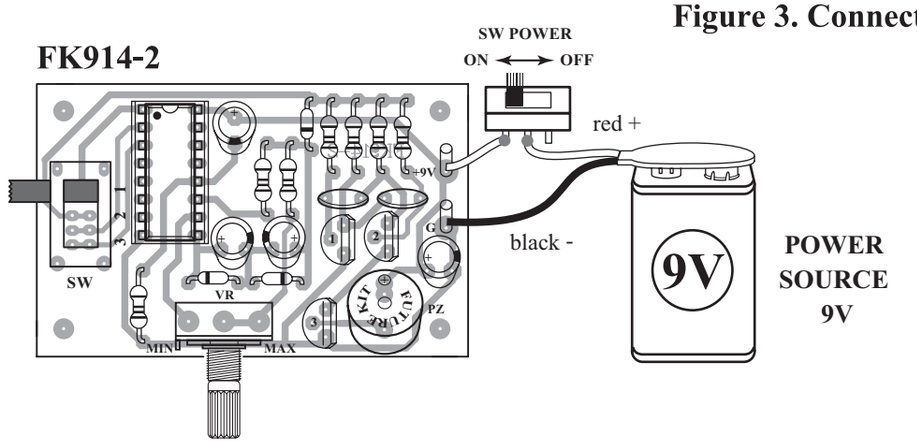
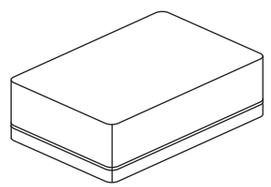


Figure 2. The alarm timer 1-240 min circuit

Figure 3. Connections





NOTE:

FUTURE BOX FB03 is suitable for this kit.

NEW KIT SET NEW

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	ANIMATED LED SIGNBOARD (5x7 DOT MATRIX)	3-5VDC.
816	VARIABLE REGULATOR 0-50V. 3A.	50VDC.
817	TRANSFORMERLESS POWER SUPPLY 6-9-12V 50mA	220-240VAC.