

ANNOUNCER CHIME
CODE 920

LEVEL 1

The announcer chime circuit is a ting-tong sound using prior to the speech or announcement. The function is working only by pressing switch on.

Technical specifications:

- power supply: 9VDC.
- consumption: 15mA. max. (working)
- dimensions: 1.98 x 1.32 inches.

How to works:

When pressing switch on, the voltage 9 volts will transfer through S1 to the circuit. The current flows through R2 to the base of TR2. As TR2 conduct current, TR3 does too and causes the collector of TR3 has high voltage which will transfer through R5, R6 to ground. Current at R6 will be transferred to IC1 to start ting-tong sound at microphone and speaker. Current flows through switch, R1, VR1 and charges C1. When C1 is charged till having 0.7 volt, TR1 will then conduct current the shorted-voltage at the collector to ground, so there is no voltage at the base of TR2. TR2 and TR3 will stop conduct current since there is no voltage at IC, there is no ting-tong sound at OUT even through pressing switch. When switching is off, ting-tong sound not present too. VR1 adjusts ting-tong sound to be presented only 1 per time and VR2 adjusts increased-decreased ting-tong sound.

PCB assembly:

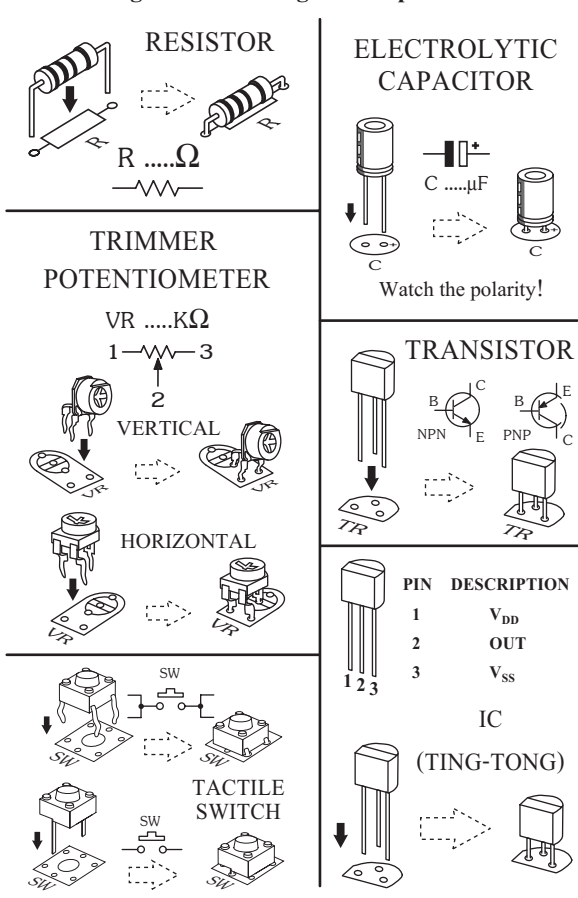
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease,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

This circuit has to be connected with amplifier set with pre-microphone and microphone. Connecting IN of pre-microphone parallel as per figure. Turning volume VR1 and VR2 to the center. Switching microphone on and pressing S1, ting-tong sound will present at speaker, then switching off. Waiting for 10 minutes, then turning VR1 volume and press S1 till having ting-tong sound.

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.

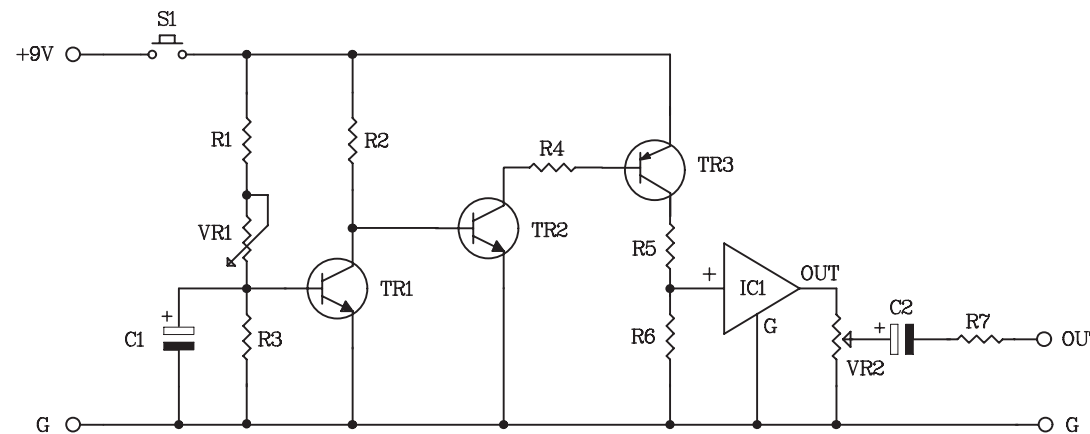
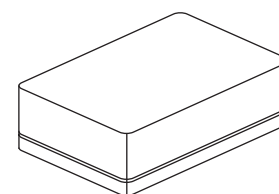
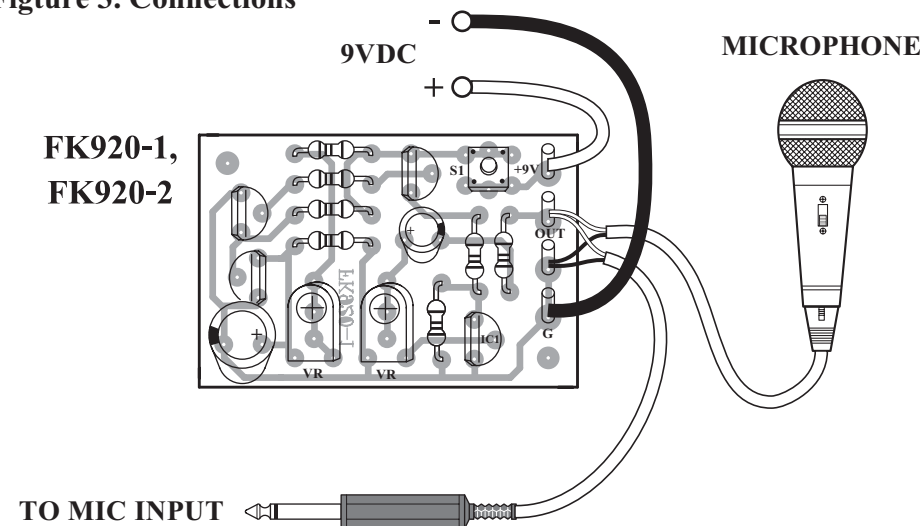


Figure 2. The announcer chime circuit

Figure 3. Connections



NOTE:

FUTURE BOX FB03 is suitable for this kit.

NEW KIT SET **NEW**

CODE FK	DESCRIPTION	POWER
167	FIREFLY LIGHT (NIGHT ACTIVATE)	3VDC
275	THREE TRAIN SOUNDS (IC DIGITAL)	3VDC
276	OWL VOICE (IC DIGITAL)	3VDC
326	DUAL STATION INTERCOM&DOOR BELL (WITH 2 SPEAKER)	6-12VDC
436	UHF REMOTE CONTROL 1 CH.	TX. 9VDC RX. 12VDC
673	MINI POWER AMP 1+1W. STEREO	3-12VDC