FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

TWO TONE DOOR BELL

CODE 238

LEVEL 1

This circuit is used a IC VT66 which has an on-chip ROM programmed for ting-tong sound. This sound and program which cannot be changed to put in IC produced from the IC factory. It results in very low power consumption. This circuit set creating ting-tong sound which uses a few appliances easy to compose.

Technical specifications:

- power supply: 3VDC
- consumption: 60mA max. @ 3VDC
- dimensions: 0.99 x 1.06 inches.

How to works:

IC1 VT66 is a signal generator to pin OUT, which will be connected through R3 to the base of TR1 for signal amplification. When finishing the ting-tong sound, IC1 will stop working at pin OUT, TR1 does not work also due for no voltage at the base of TR1, resulting no sound at speaker too. When pressing switch again, IC1 will restart working and resulting ting-tong sound at speaker. LED1 is remaining display when there is voltage in the circuit. R1 controls transferred voltage to LED. "A" point at pin OUT of IC1 can be connected for signal amplification.

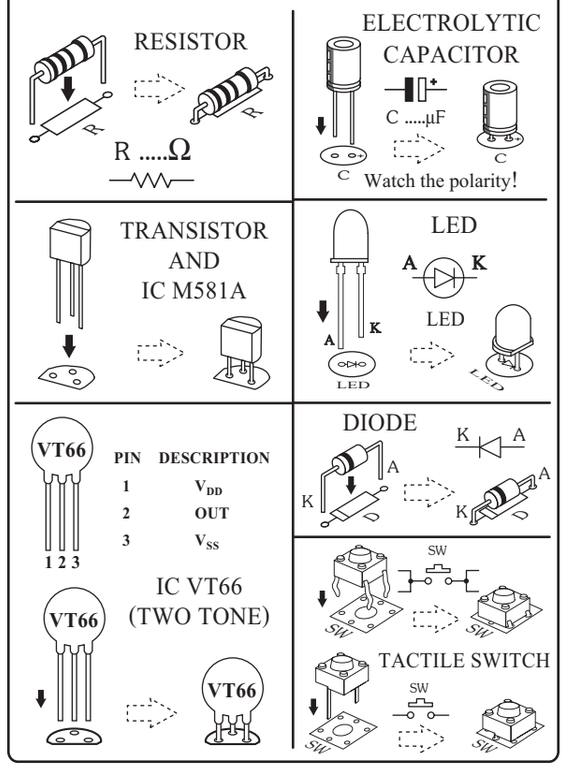
PCB assembly:

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 and IC VT66 have a flat spot on the body which lines up with the line on the overlay. If the pins will not enter the holes with ease, use a small drill to slightly enlarge the opening. Use a soldering iron of about 25 watts with a clean tip, don't use sand paper to clean. Instead wipe with a cloth while the iron is at operating temperature. Trim component 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 kit has an operating voltage range of 3 VDC. Apply power supply, LED will be lighted on. When push the switch SW, you will hear ting-tong sound from speaker and then automatically stop.

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.

CAUTION:- The circuit has IC microchip as important component so be careful when soldering avoiding to make it so not because it is fragile. Over or reverse distribution may caused IC to unpractical.

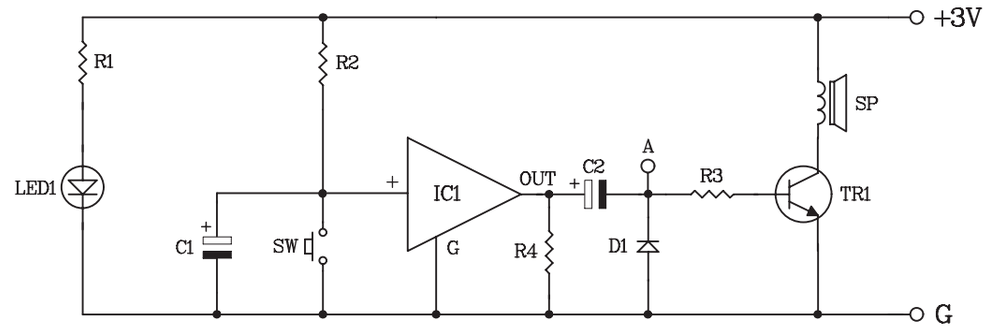
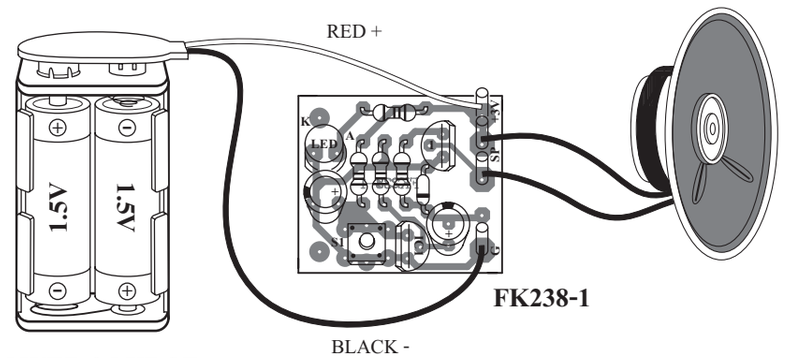
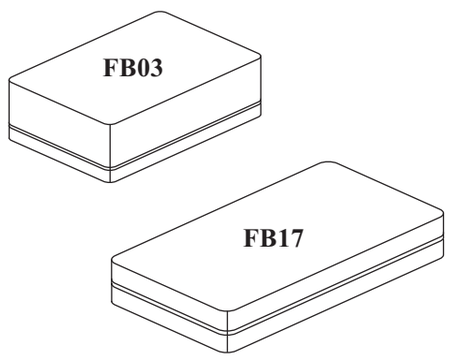


Figure 2. The two tone door bell circuit



POWER SOURCE
1.5Vx2 SIDE AA

Figure 3. Connections



NOTE:
FUTURE BOX FB03 and FB17 are suitable for this kit.

NEW KIT SET NEW

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