



FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

VOICE IC DIGITAL (LEVEL 1)
CODE 201-226, 254-260, 275-277

The IC circuit utilizes the principle of digital memory. The digital signal and program which cannot be changed is put in IC produced from the IC factory. This is called as rom. The future kit apply IC ROM in microchip from sealed with the imprinted connected pattern.

Technical specifications:

- power supply: 3VDC or 12VDC (select jumper)
- consumption: 75mA max. at 3VDC
- dimensions: 1.21 x 1.77 inches.

How to works:

The pin 5 of IC is connected to the base of TR1 in order to amplify a tone frequency throughout a speaker. The pin 2 of IC is connected through R2 to control the value of frequency. The pin3 of IC is a trickier. The signal at pin 5 of IC is feedback to the base of TR2 with trigger at pin 3 of IC for operation continue when has jumping the jump J2. The circuit necessitates the voltage at 3-volt and 2 inch 8 ohm speaker. If you want to supply the voltage 12-volt to jumping at J1.

PCB assembly:

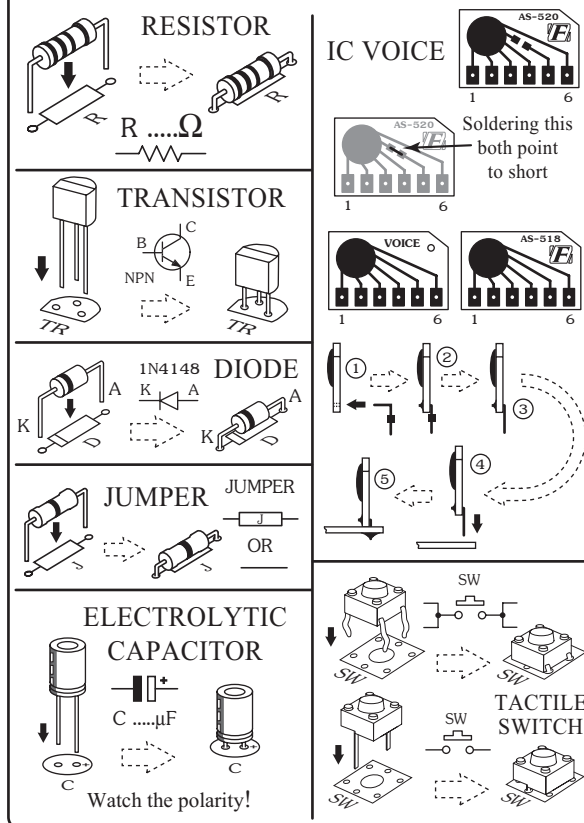
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. All components with axial leads should be carefully 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. Now check that you really did mount them all the right way round! For IC VOICE, you must be soldering IC VOICE with the PCB header 90° before soldering with PC-board.

Testing:

This kit has an operating voltage range of 3 VDC or 12VDC (selecting by jumper J1, if jump the jumper J1 is use the voltage 12VDC, but if don't jump the jumper J1 is use the voltage 3VDC). Apply power

supply. Push switch, you will hear the sound from speaker and automatically stop. If jumper J2 is jumping, the circuit will sequentially function again. The sound is not loud can be amplified by connecting with microchip amplifier set of FUTURE KIT.

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. The imprinted connected pattern should not be bent since the IC inside is easy to broken. Over or reverse distribution may caused IC to unpractical.

Figure 2. The voice IC digital circuit

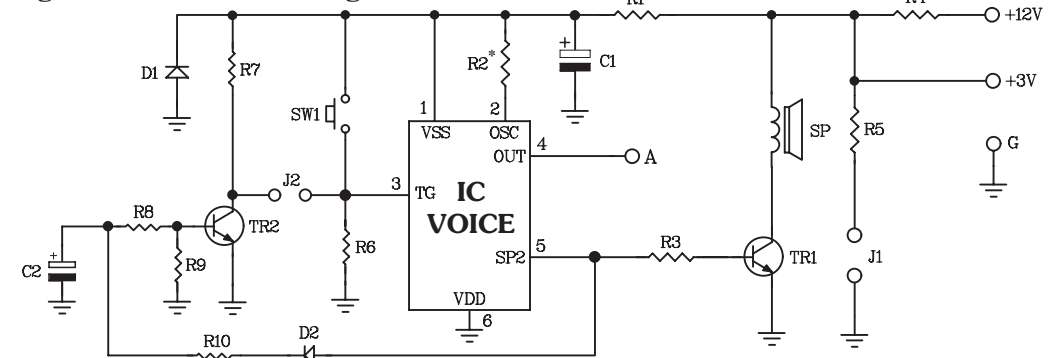
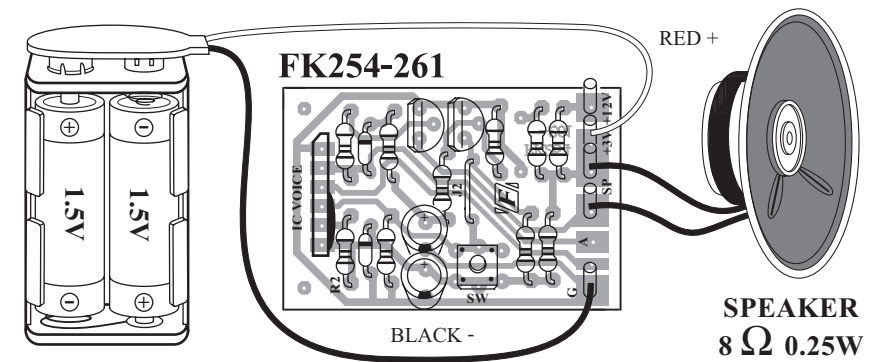
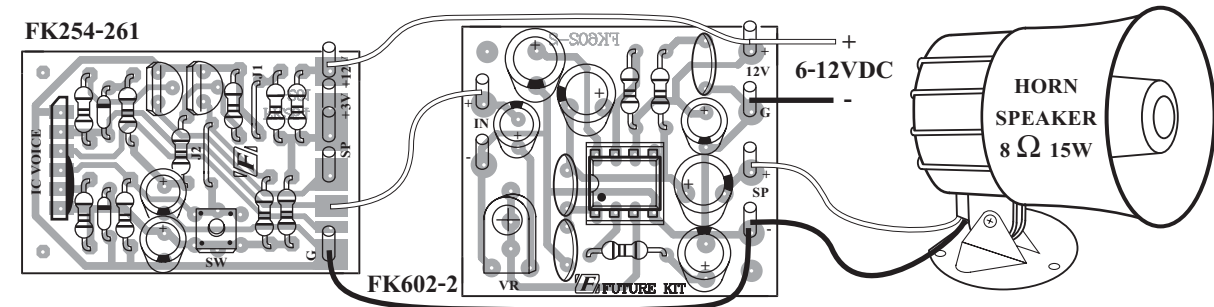


Figure 3. Connections

POWER SOURCE
1.5Vx2 SIDE AA

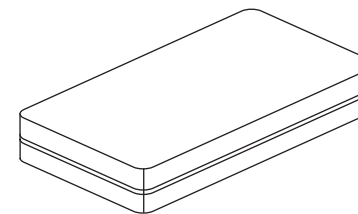


FK254-261



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	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.



NOTE:
FUTURE BOX FB17 is suitable for this kit.