

MUSIC DOOR (WITH MAGNETIC SWITCH)
CODE 273 **LEVEL 1**

This circuit can be applied to many things that you want, such as: music door when you open the door or alarm sound etc. This circuit is working when the both magnetic switch separately.

Technical specifications:

- power supply: 2 x 1.5V AA batteries (not incl.)
- consumption: 65mA. max. (working), 3µA. (stand by)
- detection: magnetic switch or other switch (NC)
- dimensions: 1.47 x 1.10 inches

How to works:

The circuit diagram shown in Figure 2, normally the both magnetic switch nearby, the circuit isn't working because the voltage at the base of TR1 is short to ground. But when the both magnetic switch separately, the voltage from power supply is fed to the base of TR1, causing TR1 is working. And then TR2 is working follow TR1. In this time, there is the voltage at pin 3 (TG) of IC VT283. IC VT283 creates the music sound, fed to amplify (TR3) the music sound and drive to a loudspeaker.

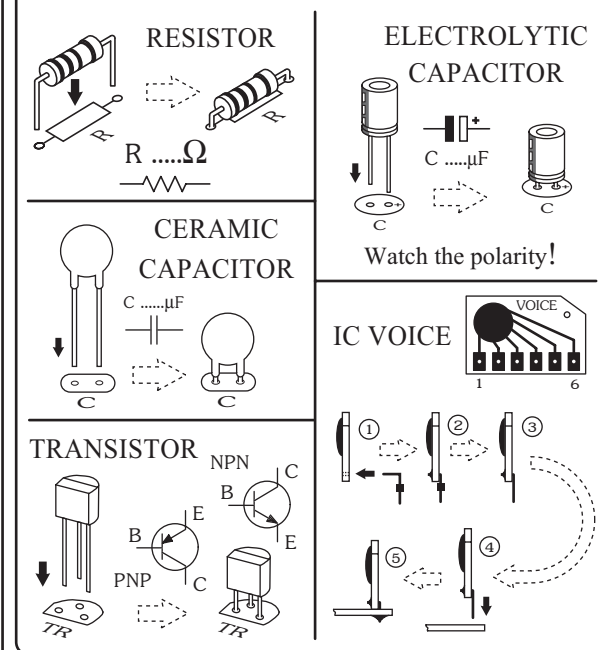
PCB assembly:

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 has a flat spot on the body which lines up with the line on the overlay. 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 PCB FK273-1.

Testing:

This kit has an operating voltage range of 3 VDC. Take the both magnetic switch nearby. Apply power supply. This time will not the sound from a loudspeaker. Take the both magnetic switch separately. You have heard the music sound from a loudspeaker continuously but when you taking the both magnetic switch nearby, music sound is playing until the end of music and stop automatically.

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.

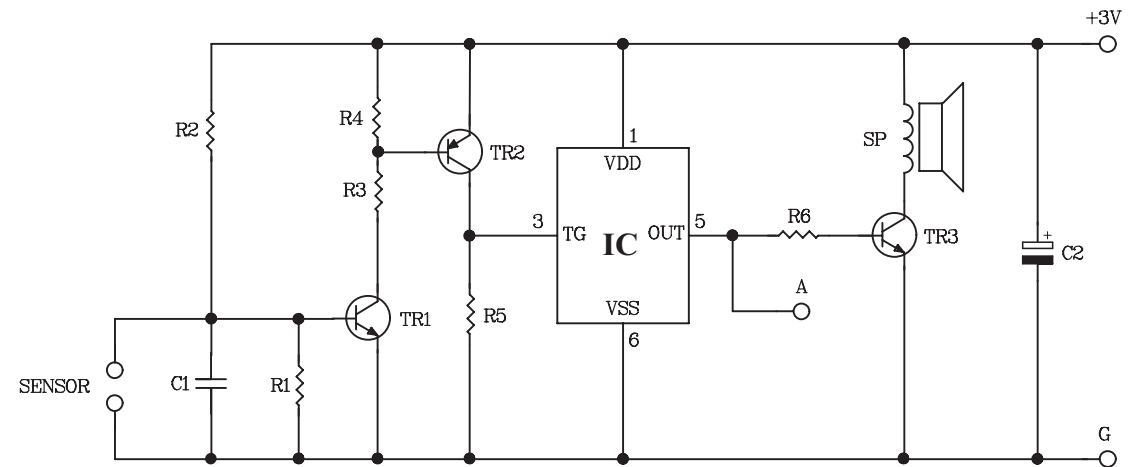


Figure 2. The music door circuit

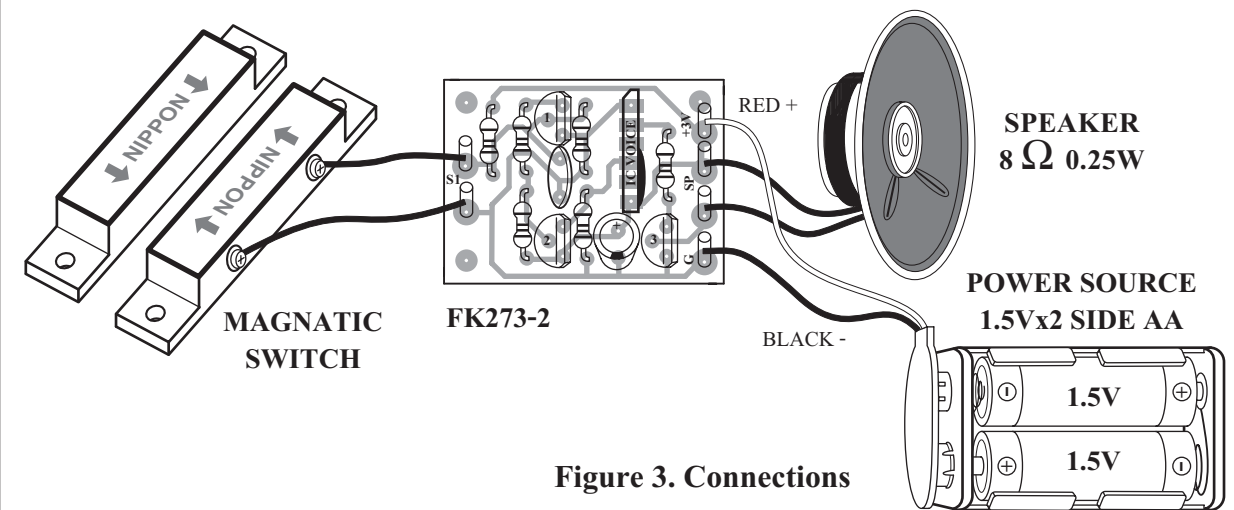
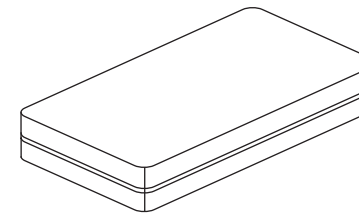


Figure 3. Connections



NOTE:

FUTURE BOX FB17 is suitable for this kit.

NEW KIT SET **NEW**

CODE FK	DESCRIPTION	POWER
511	TWO FUNCTION INFRARED SENSOR	12VDC
674	POWER AMP. 2W MONO WITH SPEAKER	9-12VDC
675	POWER AMP. 2+2W STEREO WITH SPEAKER	9-12VDC