# FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

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## FM WIRELESS MIC 2 STATE

**CODE 703** LEVEL 1

**The FM wireless microphone circuit is adding up 1 amplifying RF of TR so that this circuit comprises 2 sets of resonance circuit and 2 trimmers.**

**Technical specifications:**

**- power supply : 9VDC.**

**- consumption : 10mA. max.**

**- transmitting frequency: approx. 88 MHz (adj.)**

**- PCB dimensions : 1.64 x 1.54 inches.**

**How to works:**

**Microphone receives the signal and transfer through C2 to the base of TR2. TR2 acts as wave generator as well as developed signal mixer. T1 acts as frequency adjuster. The mixed signal will be sent through C5 to the base of TR1 for radio frequency amplifying to the collector toward antenna in order to present at the collector of TR2. TR1 will print coil for easier installation.**

**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!**

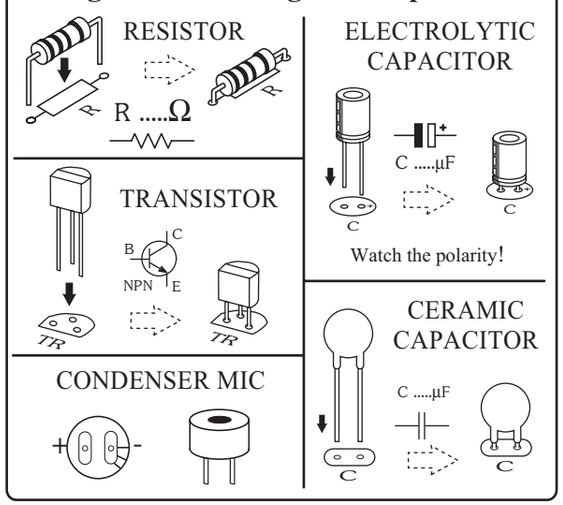
**Testing:**

**Connect the power supply 9 volts to "+3V" and "G" point. Connect ANT to the coil by soldering at ANT by removeing the solution before soldering, if not soldering will not work. Ture FM station to 88MHz and slowly adjusting T1 by using a plastic screwdriver till there is a sound from radio.Testing by speaking to the mircophone. If failure, turning radio wave to 108MHz. Adjusting T2 to extend the distance.**

**Application:**

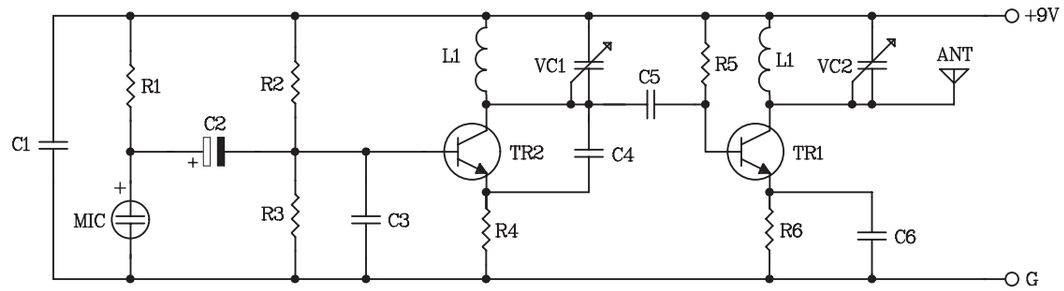
**After the test works, connect the switch according to the chart (figure), by altering connect the positive pole to "+B" instead of +9V, the switch will work more efficiently. If a box is needed we can use FB08 box.**

### Figure 1. Installing the componants



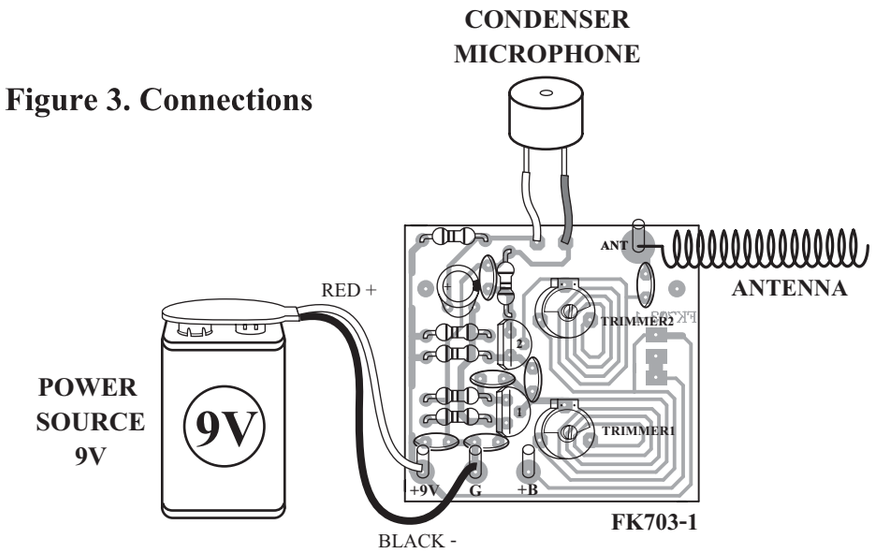

**Troubleshooting:**

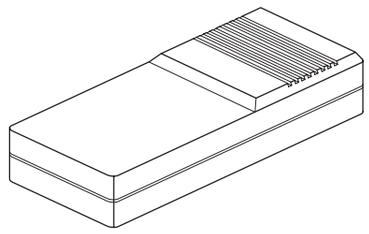
**The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.**




### Figure 2. The FM wireless MIC 2 state circuit

### Figure 3. Connections



**NOTE:**

**FUTURE BOX FB08 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 |