

FM WIRELESS MIC 1 STATE
(LOW VOLTAGE) **LEVEL 1**
CODE 701

The FM wireless microphone is coil imprinted in resonant circuit so that it is easy to assemble.

Technical specifications:

- power supply : 3VDC.
- consumption : 10mA. max.
- transmitting frequency: approx. 88 MHz (adj.)
- PCB dimensions : 1.64 x 1.06 inches.

How to works:

This circuit utilizes a condenser MIC to work the reception function. There is a amplifier fate in microphone. The amplified signal will be transmitted through C2 to the base of TR1 which oscillates the radio frequency and mix the two frequency together. The oscillated frequency is related to the trimmer and imprinted coil. The collector of TR1 is connected to an antenna to be on air.

PCB assembly:

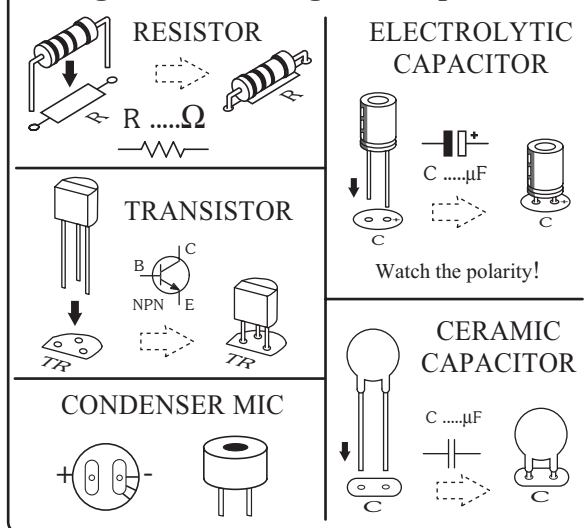
Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease, 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 3 volts to "+3V" and "G" point. Remove the solution before solder "ANT" point with coil. Then adjust the FM TUNER to 88MHz. Slightly adjust the trimmer by using a plastic screw until there is a horn sound throughout the radio. Talk to the microphone. The sound will be heard through the radio speaker. If 88MHz is unpractical, adjust FM TUNER to 100MHz or at last 108MHz and test again.

If the circuit function is that fashion this indicates that it is practical. To be more convenience, the switch should be provided and connect the anode terminal at +B instead. The circuit is also be placed in the 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.

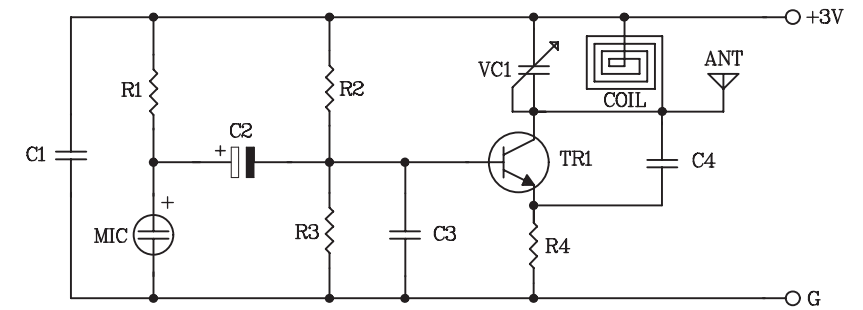
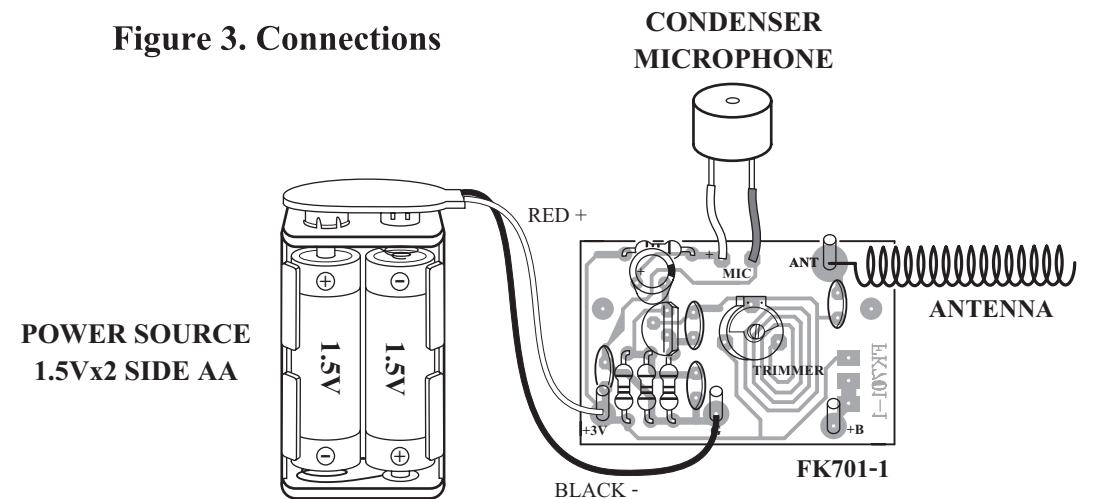
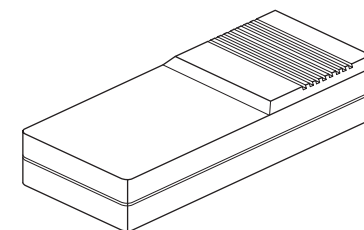


Figure 2. The FM wireless MIC 1 state (low voltage) circuit

Figure 3. Connections



POWER SOURCE
1.5Vx2 SIDE AA



NOTE:
FUTURE BOX FB08 is suitable for this kit.

NEW KIT SET

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