

AM RADIO RECEIVER (STEREO)
CODE 708 **LEVEL 1**

The AM radio receiver circuit consists of a few components so it is very easy to assemble.

Technical specifications:

- power supply : 4.5-9VDC.
- consumption : 150mA. max. @ 9VDC.
- PCB dimensions : 2.61 x 1.98 inches.

How to works:

This circuit can be divided into two sections; receiver and amplifier. IC1 functions as a receiver. The VC (variable) and coil are frequency station tuners. The received signal will be transmitted to be amplified by IC2 MK484. After that it is transmitted through the "OUT" pin, passed through R4 and C5 to VR1, which is available for adjustment of increasing and decreasing of the sound. The middle pin of the volume is connected to the pin 3 of IC2, which is the input of the amplifier. Therefore, the signal is transmitted throughout the speaker.

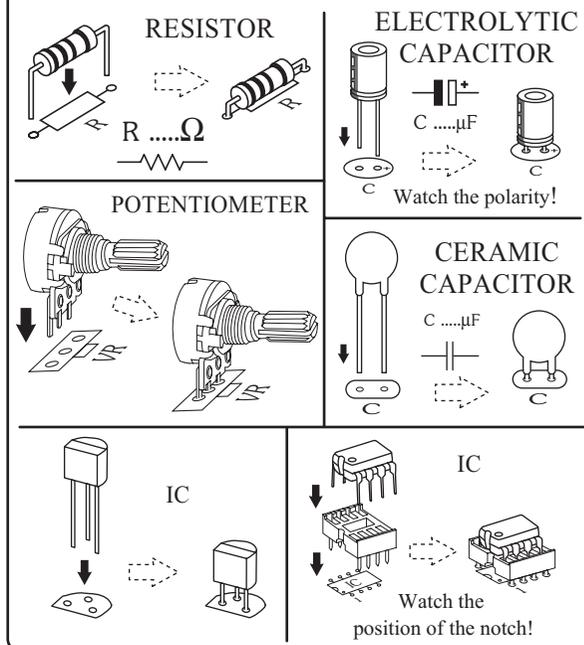
PCB assembly:

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 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:

The assembly should begin with smaller components first before proceeding to larger components accordingly. Upon completion of the assembly, check to ensure that it is in order many times. After that, adjust the volume to the highest frequency station, compare with the other radio. If the highest station is not in the highest position, turn the variable to that point and use a screw to adjust the trimmer a little at "G" spot. The highest station will be at the position that the variable is turned to highest.

Figure 1. Installing the components



Troubleshooting:

The most problem is like the fault soldering. Check all the soldering joints suspicious. If you discover a short track or a short soldering joint, re-solder at that point and check the other soldering joints. Check the position of all components 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.

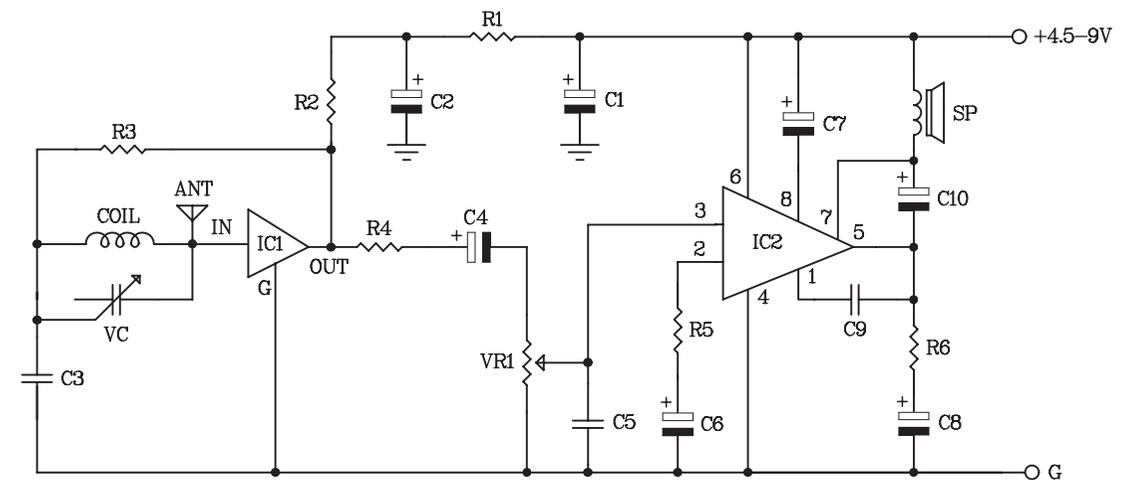


Figure 2. The AM radio receiver (stereo) circuit

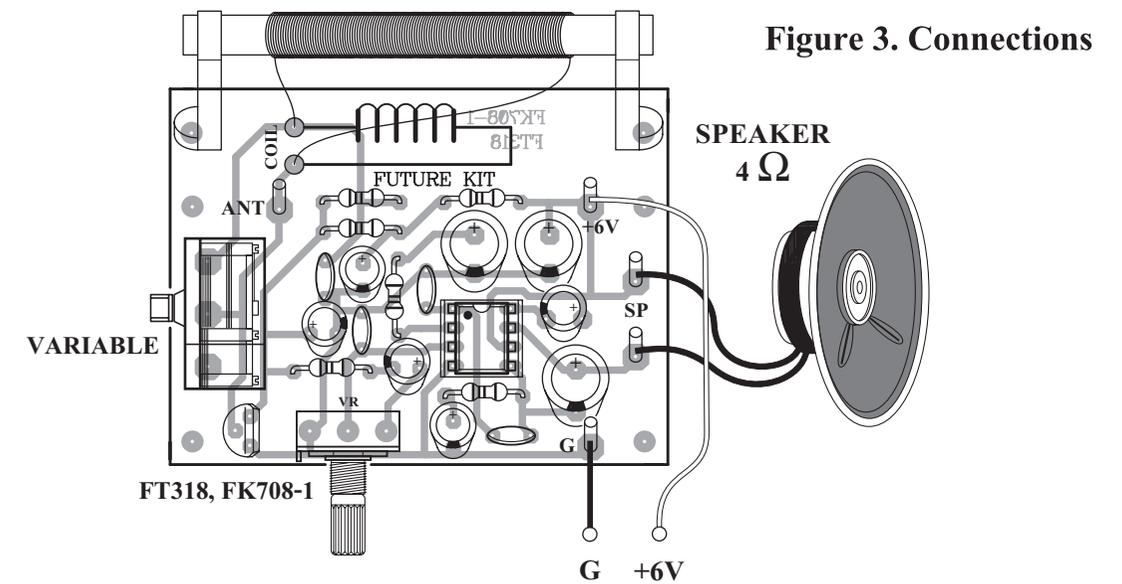
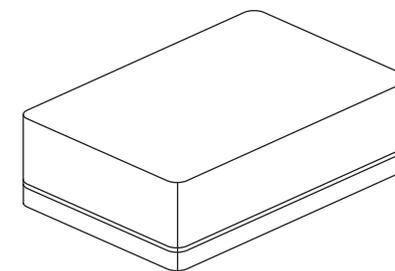


Figure 3. Connections



NOTE:

FUTURE BOX FB04 is suitable for this kit.

NEW KIT SET 

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