

MK484 Kit 7 Mike's Electronic Parts, LLC

MK484 Kit 7 is a simple basic AM radio made from the MK484 Radio IC. This kit is not a beginners kit. It does require soldering and the ability to read a schematic. The kit is designed to allow a modular radio build. The RF tuning section is left off board to accomadate a variety of coil and capacitor combinations. The audio output can be connected directly to a high impedance earphone or headphone. We have tested this kit with headsets 2,000 Ohms and higher with good results. The audio output could also be fed directly to an audio amplifier.

Improper alignment of either the radio IC or the C3 electrolytic capacitor may cause your radio permenant damage. Use the flat on the radio ic and the image on the circuit board to align the radio IC. The side of C3 that has a white stripe marked with minus signs on one side faces the flat shown on the circuit board (opposite the plus sign).

The MK484 IC looks like a transistor with three pins packaged in a TO-92 case. The MK484 contains 10 transistors and has a gain of 72 db. It also has automatic gain control provided by the R1 100K resistor. The MK484 is made to operate from 1.1 to 1.8 volts. Over 1.8 volts will destroy the chip and may have a tendency to oscillate at higher voltages. The R2 1K resistor can be increased to 2.2K or reduced to 500 Ohms. Below 500 Ohms may harm the IC.

Using an antenna wire is optional with this kit. Use of an antenna will largely depend on your location and strength of nearby radio stations. If you need an antenna, experiment with a short 3 - 5 foot antenna and work your way up in length until you get the desired results.

There are three coil choices with the MK484 Kit 7. Please refer to the schematics on page 1 for connection information. When using our coils with taps on them, if you do not use the taps on the coil do not cut them. This will cause the coil not to work. Just leave it as is.

The 680uh round rod coil has no taps. This coil is ideal when not using an antenna or when you intend to inductively couple the antenna.

The 680uh 470uh tap coil has a tap at 470uh. Although an antenna is not required, the tap is ideal for use with an antenna.

The 788uh with center tap coil has multiple taps to allow some experimentation. The coil has one tap 10 turns from the end and one at the center. Connect either the center tap or the coil wire from the end farthest from the 10 turn tap to number 2 on the circuit board (see schematic on page 1). Only one of the two should be connected to the circuit board, not both. Experiment with which connection gives you the best results.





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