FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

DYNAMIC MICROPHONE PREAMPLIFIER

CODE 647 LEVEL 1

This microphone preamplifier circuit is exceptionally designed to use with microphone. Easy application and safe cost. It requires only 2 transistor and few R and C. This circuit can give maximum 500mV signal power.

Specification:

- Supply voltage : 9-12VDC
- consumption : 0.5mA.max.
- Dimension : 1.41 x 1.76 inches.

How it works:

The signal from MIC will fed to the base of TR1 to amplify the signal which TR1 is first amplifier. This signal at amplify is complete will send from the collector of TR1 to the base of TR2 for amplify the signal again before send the signal to the power amplifier.

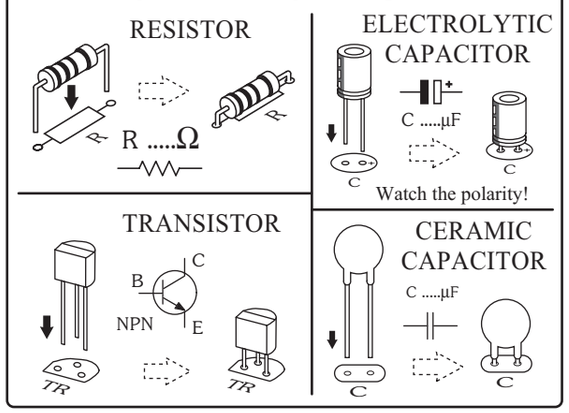
PCB assembly:

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:

Connecting the circuit according to figure shown. MIC wires have to be shield wire only. It requires battery 9 volts. Connecting OUT with INPUT of any amplifiers. Turning volume and speaking at microphone, there should be sound at speaker.

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.

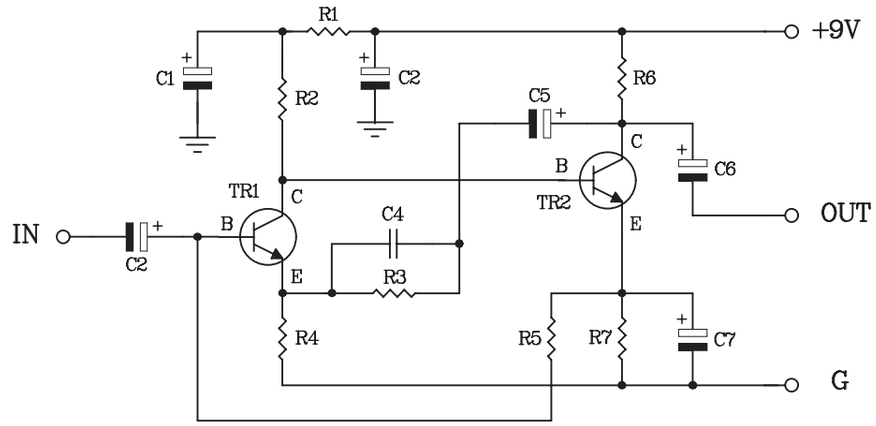


Figure 2. The dynamic microphone preamplifier circuit

Figure 3. Connections