



FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

MINI TELEPHONE CIRCUIT CODE 310

LEVEL 1

This circuit is a receive telephone. It is easy to use and suitable for learn the operation of telephone.

Technical specifications:

- no need power supply.
- PCB dimensions : 2.59 x 1.72 inches.

How to works:

From the telephone line, the voltage of the telephone line will be fed to the bridge diode (D1-D4) for control the voltage to one way. This voltage is regulated by ZD15V and TR1 for supply to the circuit. TR2 and TR3 are amplified to phone. TR4 and TR5 are amplified of condenser microphone.

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:

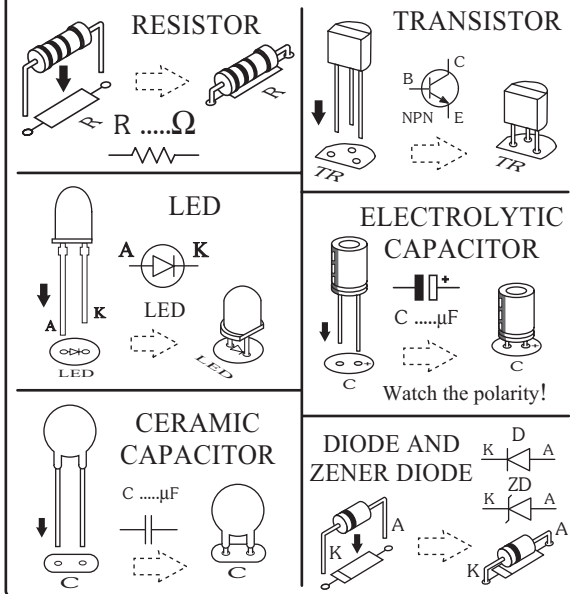
Connect the telephone line to the telephone following the figure 3. Slice switch to "ON" position. In this time, you will hear the telephone signal from phone.

Speaking to condenser microphone. Your sound is loud from phone a little bit. Slice switch to "OFF" position and call to this circuit. When there is ringing tone, slice switch to "ON" position and talking. This circuit is no ringing circuit, you can add the ringing circuit with FUTURE KIT code FK304.

Note:

This circuit is designed for the second telephone in your home, so this circuit is no ringing circuit. If you want to add the ringing circuit, you can use the FUTURE KIT code 304 to installing parallal with the telephone line.

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 mini telephone circuit

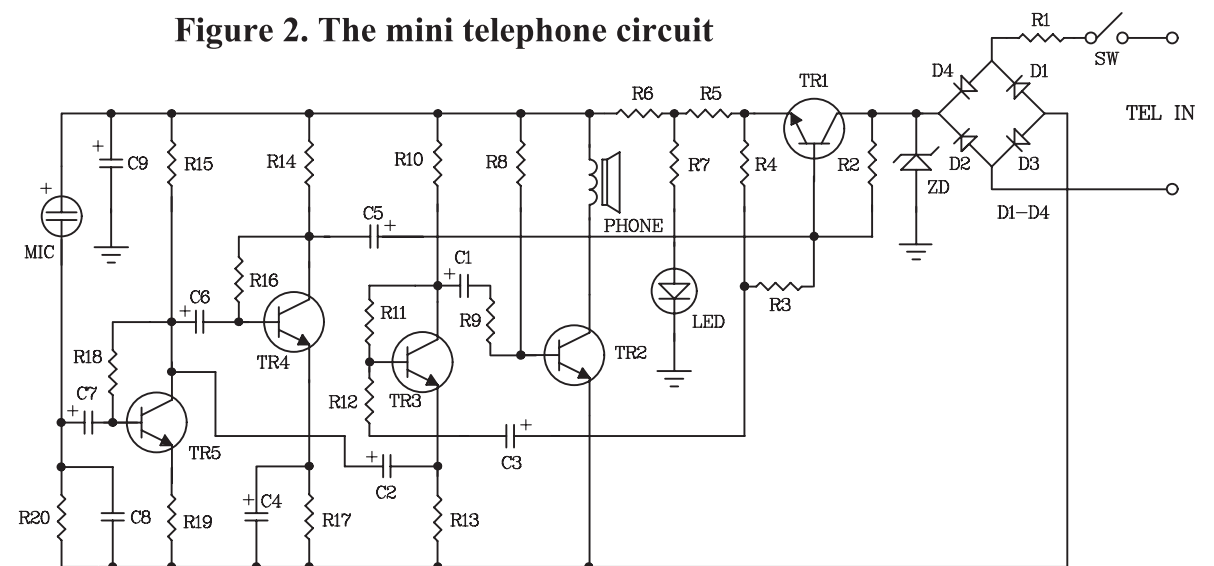
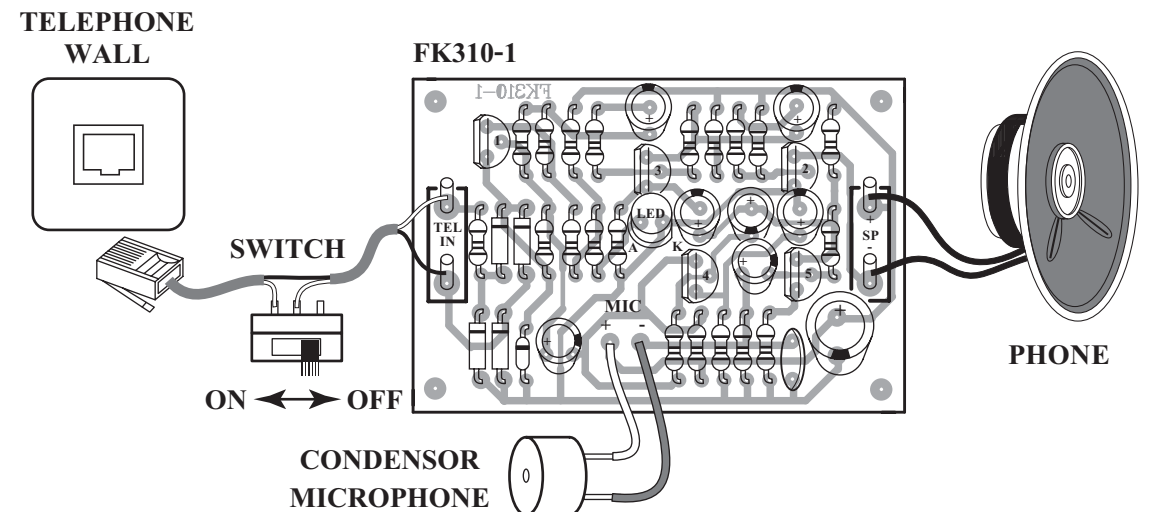


Figure 3. Connections



NOTE:

FUTURE BOX FB03 is suitable for this kit.