

2.3.10 Assembly of the Rectifier Bridge

The rectifier bridge (BRIDG1) goes to the top left of the board. The longest pin (marked as +) goes into the hole with the square pad. Fit the component as close to the PCB as possible and solder it. Cut the legs, but not too short.

2.3.11 Assembly of the 10 μ F Capacitor

There are 6 small electrolytic capacitors of 10 μ F in the kit. C1, C2, C11 and C29 are close to the PIC (IC5). C9 is to the right of the Voltage Regulator (IC6) and the last one, C6, is close to the letter 'P' on the lamp panel. Please note that the longest leg should go into the square pad. Solder them and cut the legs.

2.3.12 Assembly of the Resonator

The resonator RES1 is close to the PIC (IC5), just below the green LED. Solder it and cut the legs.

2.3.13 Assembly of the buzzer

The buzzer is located to the right of the keyboard (BUZ1). The longest pin is the (+) which should go into the leftmost hole. Solder it and cut the legs.

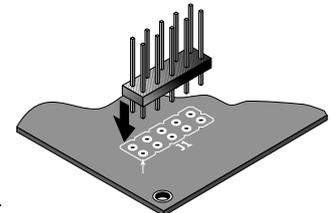
2.3.14 Assembly of the transistors

There are 7 transistors in the kit. 6 of them are marked BC547 and the remaining one is marked BC557. Please check these numbers carefully; although they look almost the same, they should not be swapped! First, insert the only BC557 into the position marked as T5 in the top right corner of the board (not T6!). Solder it, and cut the legs. Please check the PCB carefully for short circuits. The legs of the transistors are very close together and a short circuit is easily made. Note that the transistors have a flat side, which should line up with the symbol printed on the PCB.

Next, we will mount the 6 BC547s. 4 of them, T1, T2, T3 and T4 are located just below the displays. T7 should go below the buzzer. T6 goes to the top right of the PCB.

2.3.15 Assembly of the Header

Mount and solder the header (J1) at the bottom right of the PCB. The short legs should go into the holes in the PCB. The longer legs should point upwards; these will be used later to fit one or more jumpers.



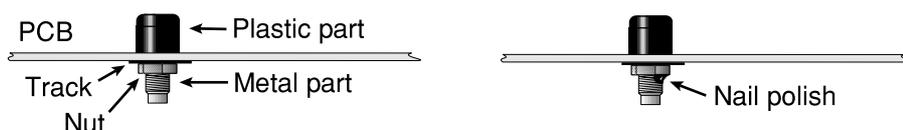
NOTE: if you don't want the jumpers to be changed from the front of the PCB (i.e. if you want to fit them permanently) you may decide to mount the header from the rear of the PCB.

2.3.16 Assembly of the MultiFuse

The MultiFuse goes to the left of the Voltage Regulator at the top left of the PCB (FUSE1). Solder it and cut the legs. The MultiFuse is a self-restoring fuse which doesn't have to be replaced in case of a short circuit.

2.3.17 Assembly of the Sockets

Locate the 26 sockets in the plastic bag containing the mechanical materials. These 26 sockets all go onto the Steckerbrett part of the PCB in the holes marked DSC1 to DSC26. They should go into the large holes. Mount them one by one. Remove the nut from the socket. Ensure that the plastic tube is correctly fixed to the metal part of the socket. If this is not the case, fix it first. Insert the socket in the large hole from the front of the PCB and fit the nut again at the back.



The nut will 'touch' the metal ring on the PCB, which is exactly what we want. Use the pliers, or even better: a **nut driver**, to fix the nut, but don't fit it too tight as the plastic may break! You may want to secure the nut by applying a drop of nail polish on the junction between the nut and the metal part of the socket.