

Don't be afraid to apply some force whilst doing this. The V-cut line was added to the PCB especially for this purpose and breaking the PCB shouldn't cause any damage to the PCB or the components.

## 2.6 Wiring the PCB

If you've carried out all the steps described above, you've now got a more or less finished PCB. Check all connections carefully, to ensure that all soldered contacts are OK and that there are no short circuits. We will now wire up the PCB so that we can turn it on, in a few minutes time. Please refer to the wiring diagram in paragraph 2.7 for additional information. It shows clearly how the various bits and pieces should be connected together.

### 2.6.1 Inter-board wiring

If you look closely at the board, you'll see that it actually consists of two parts: the main Enigma PCB and the Steckerbrett. A small rig is present in the board to help you break away the Steckerbrett from the rest of the PCB, should you want to do so. This may be useful if you want to mount the PCB in a case with the Steckerbrett on the front, just like on a real Enigma.

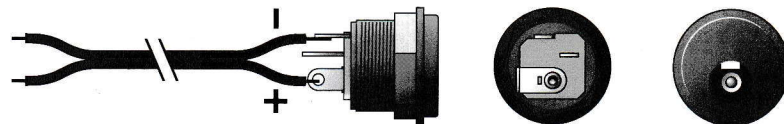
As we have two separate PCBs, we need to establish some contacts between them. Use the black single wire and prepare 7 short wires of 6 cm each (approx. 2½ inch). Strip off the insulation at both ends of the wire. You may use a wire stripper or the cutting tool to do this.

Mount these wires to the oval pads 1...7 at the back of the PCB. Insert the wires from the back and solder them. The oval pad is large enough to do this. Mounting the cables from the back of the PCB may prove useful if you want to build both PCBs in a case mounted at an angle of 90° between them. If you want, you may now break off the Steckerbrett, but be careful not to damage the rest of the PCB and the components.

### 2.6.2 Connecting an adapter

Take the piece of dual wire that you've found in the kit. Strip the wires at both ends.

Solder the two wires at one end to the outer contacts of the power socket. The other end goes to the two pads, marked a ~ on the top left of the Enigma PCB. The word **Adapter** is printed between these two pads. Insert the wires from the back of the PCB and solder them at the back.



When using an AC adapter, you may connect the two wires either way, but when using a DC adapter, they should be connected the right way around to ensure the correct polarity. In that case the leftmost (~) corresponds to the (-) terminal, whilst the rightmost (~) corresponds to the (+) terminal. This information is based on the fact that most adapters carry the (+) on the centre contact of the plug. If this is not the case, you should swap the two wires, of course. Connecting it the wrong way around, won't damage your Enigma-E; it just won't do anything.