

PLACE RESISTORS

1

Start with the two resistors:

The text on the PCB shows where R1, R2 go.

Ensure that you put the resistors in the right place.

PCB Ref	Value	Colour Bands
R1	15k	Brown, Green, Orange
R2	100k	Brown, Black, Yellow



SOLDER THE CERAMIC DISC CAPACITORS

2

There is one ceramic disc capacitor which should be soldered in to C2 on the PCB. The capacitor should be marked '104'. It does not matter which way around it goes



SOLDER THE ELECTROLYTIC CAPACITORS

3

The other two capacitors are electrolytic capacitors, they are both marked 1uF. Place these two capacitors in to the board where it is labelled C1 and C3. Make sure the device is the correct way around. The capacitors have a '-' sign marked on them which should match the same sign on the PCB.



CONNECT THE WIRES

4

The 3 connections to your amplifier PCB need to go through the strain relief holes as shown in the picture. Start with the connection labelled 'Speaker'. The kit is supplied with ½ a metre of twin cable with a 3.5mm Jack connector on one end. This cable will be used to connect both the speaker and the MP3 player. You will need to cut a length from the end that does not have the Jack connector on, which will be used to connect the speaker. Make sure that you leave enough cable so that you have a long enough lead to connect your MP3 player!



Take the piece of wire that you have cut off and strip the ends of the wire. Connect one end to the two terminals on the speaker and the other end to the board connection marked 'Speaker'. Whilst it doesn't matter which way around the speaker connections go you may wish to connect the stripe to the pad on the board marked stripe and at the speaker end connect the stripe to the '-' terminal.

The middle connection is for the power. The AA battery case (shown left) should be attached to the power connection. Connect the red wire to '+' and the black wire to '-'.

The final connection is the audio input. Strip the insulation off the other end of the remaining cable that has the Jack plug on. Run some solder into the wire and trim the wire so that only 2 or 3mm of bare wire is left. Solder these wires into the board where it is labelled 'Input'. The side of the wire with the stripe should be connected to the pad labelled stripe.



Checking Your Amplifier PCB

Carefully check the following before you insert the batteries:

Audio equipment may become damaged if connected to an incorrectly built amplifier.

Check the bottom of the board to ensure that:

- All holes (except the 4 large (3.3 mm) holes in the corners) are filled with the lead of a component.
- All these leads are soldered.
- Leads next to each other are not soldered together.

Check the top of the board to ensure that:

- The three wires are connected to the right place.
- The '-' on the capacitors match the same marks on the PCB.
- The colour bands on R1 are Brown, Green, Orange & R2 are Brown, Black, Yellow.
- The battery clip red and black wires match the red & black text on the PCB.

Fault finding flow chart

