

IDENTIFYING POLARITIES

Some of the parts in the Parts List are polarity-sensitive. Please see below for the details.

It is most important to get this right.

THE 10 μ F 25V ELECTROLYTIC CAPACITORS: The negative lead is identified on the capacitor body. The positive lead is the longer one. Insert a Black sleeving on the negative lead and any other colour on the positive lead before cutting them in preparation for soldering. This will help in avoiding polarity errors. Sleeving stripped of single strand wire fits nicely on resistor and capacitor leads.

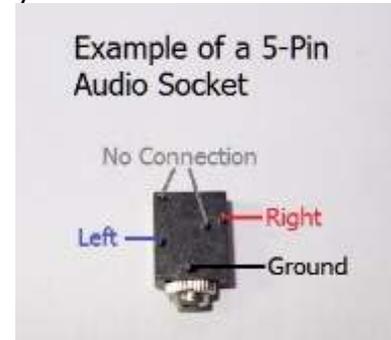
THE LED: Same as the capacitor, the longer lead goes to positive. Please follow the instructions above for identifying the leads before cutting them. The LED is not so critical about reverse polarity. It just won't light up if the connection is reversed.

THE AUDIO-IN JACK SOCKET: I will show you here how to identify the Left and Right channel connections on the Audio Jack Socket.

You will need your multimeter set in the **low Ohms range**, a pair of stereo headphones and three different colour permanent marker pens e. g. Red, Blue and Black. Preferably hold the socket in a small vice so that you have both hands free.

1. First we are going to identify the ground pin. Hold one of the multimeter leads on the mounting screw and check for **zero Ohms** on all the contacts. Mark the one that you find with Black. This is the ground contact.
2. Connect the headphones to the socket.
3. Put on the headphones making sure that the "L" earpiece goes to your Left ear and the "R" earpiece goes to your Right ear.
4. With one multimeter lead on the ground contact that you just found, touch all the other contacts with the other multimeter lead. If you hear a crackle in the Left ear, you have found the Left contact. Mark it with Blue. If you hear a crackle in the Right ear, you have found the Right contact. Mark it with Red.

If there are more than three contacts and you have already identified Left, Right and Ground, ignore the rest. See the example of a five-contact socket in the picture.



If there are three contacts and none of them give you a crackle in the Right ear, it is a Mono socket. You can't use it.

THE DC JACK SOCKET: Please read the section on the AC Adaptor again before proceeding. I will show you here how to identify the positive and negative contacts of the DC socket for either type Adaptor.

You will need the same items that you used above to check your Audio Socket except the headphones. Your multimeter should be set to a **DC Voltage range** higher than 12V.

1. Connect your AC Adaptor to the mains and switch on the power. At this point you can also check the polarity and actual voltage at the tip of the plug with your multimeter. It is not a problem if it is slightly higher than the rated 12V.
2. Without making any connections to the DC Jack socket, plug in the Adaptor plug to the socket.
3. There are usually three contacts on the DC Socket. Use your multimeter to measure the voltage between the contacts. If you get no voltage try one of the other contacts. If you are

using a digital multimeter and you get a minus sign in front of the 12V, reverse the multimeter leads for a correct 12V positive reading. Put a Red mark on the contact that goes to the Red lead and a Black mark on the contact that goes to the Black lead. Ignore the other contact.

4. The contact marked with Red goes to the Red wire in the Wiring Diagram and the contact marked with Black goes to the Black wire.
5. Once you have confirmed the polarity symbol of your AC Adaptor, it is best to make the same marking (see the picture below) near the DC Jack Socket of your finished amplifier to remind you how the DC Socket is wired.

AC Adaptor Polarity Identifier

