

To assemble the transceiver board you will need a pair of small sidecutters, 22 swg multicore solder (preferable to 18 swg) and a good earthed soldering iron with a tip diameter of 0.125" or so. If you need to rush out and buy any of these you will be making a good investment for the future.

## Components

The majority of the components used are relatively insensitive to heat and handling, except for the PA transistor. Due to its MOS construction, you should avoid handling the pins and preferably work on a well earthed surface. Once it is installed on the pcb it can be treated normally. When soldering, try to achieve a bright joint, and never take the iron to the solder, always having the iron at the joint before the solder is applied.

All of the components mount on the non-track side of the pcb. Note that in certain cases one lead will be soldered to the track on the underside, and the other to the top surface of the pcb, which acts as an earth plane. The layout diagram (Fig. 3) shows the latter points as crosses on the appropriate leads. There are also three holes that are soldered on both sides of the pcb using a short length of wire or solder pin through the hole, to bring earth connections through to the top side.

Resistors mount flat against the pcb top surface, except R19, which is vertical. The lead spacing is 10mm, and gently bending the leads of the resistor at right angles to the body will just get this spacing right. Capacitors should mount as close as possible to the pcb, but without deforming the leads where they enter the body. Do not allow components to stand more than 5mm above the pcb surface. The polystyrene capacitors must sit flat against the pcb, and be careful to observe the polarity of electrolytic types. Where the latter need one lead earthed to the top foil, if a radial type then the negative lead will need to be bent out from under the body before insertion. Cut the earthed leads before soldering so that about 5mm remains.

## The PCB

The whole of the transceiver is built on one double sided pcb. This

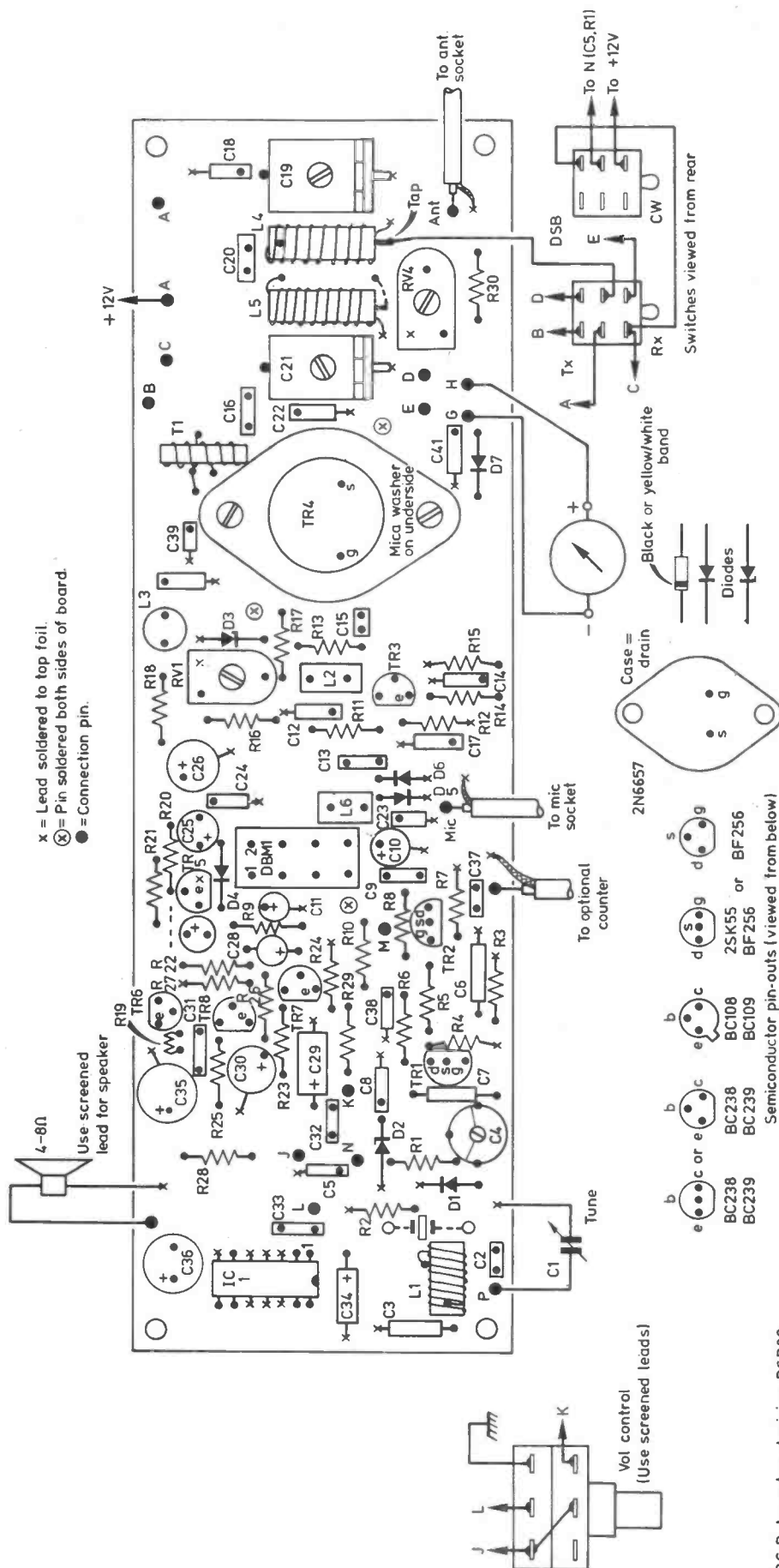


Fig. 3