



round the rest of the board, soldering up one oscillator section at a time. Again keep leads as short as possible, and orientate bodies of vertical mounting resistors in the positions shown.

When winding the six coils comprising L5 and L6 (two for each oscillator), it is important that the correct winding direction is used on the mandrel, as otherwise the diode tap cannot be made in the correct place. Each coil is wound by taking a 15cm length of 18 swg (1.25mm) wire, and winding round a 7/32" mandrel (such as a drill) so that the winding progresses anticlockwise from left to right. If you start the winding by having the wire under the mandrel, and then bring it up over the back towards you, continuing to wind to the right, you will get it correct.

Six of these coils are required, three of them with the insulation scraped off at 1.25 turns from the end nearest the 1nF decoupling capacitors. Tin the exposed copper before putting the coil into the PCB, then solder the diode into place, with the banded end against the PCB. The other end can then be clipped off just at the point where it meets the tap made earlier, and then be soldered.

The low pass filter inductors, wound on T50-6 (yellow) toroids, need 22cm of 22 SWG (0.71mm) wire for the 12 turn ones, and 18cm for nine turns. Space the windings out evenly over the cores, and insert them so that the cores are resting against the PCB before soldering. The capacitors associated with these inductors can be silver mica or ceramic types.

Although HC/18-U crystals (wire leads) are preferred, HC/25-U (pins) types can be used providing care is taken when soldering them into place.

Place screens in the positions indicated by the dotted lines, of tinfoil or double sided PCB material, again 15mm high.

An 18g aluminium screening plate is required cut to the same outline size as the PCBs. This is sandwiched between the two assembled circuit boards — the drawing shows how the boards are mounted. In the prototype shown, VC1 was also accommodated on this screen, mounted on an additional side piece which had been bent down. Whether this is done will depend on the type of air-spaced capacitor used, and whether the whole

