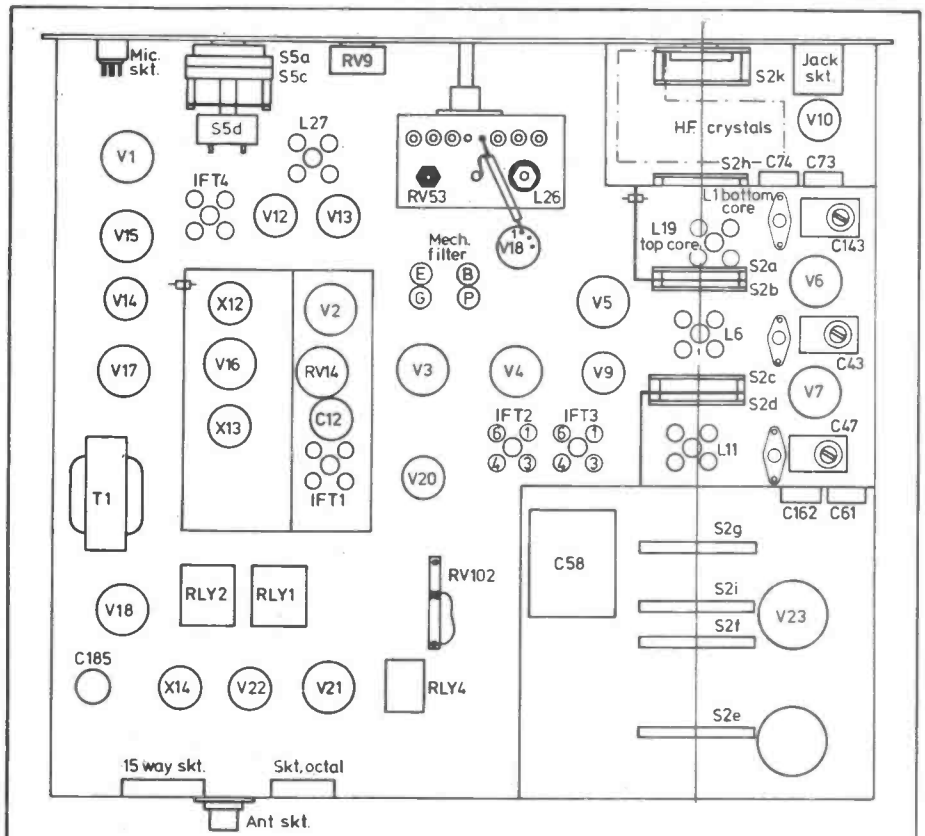

FIG.3. Component location – below chassis.

should not be used as they are inductive, and their impedance changes with temperature.

5. Means of indicating RF power, eg. 'Thruline' wattmeter or SWR bridge.
6. Swamping tool consisting of a 0.01 uF 400v capacitor in series with a 1k ohm, ½W resistor.

If the rig is a long way out of adjustment the following additional items may be required.

7. Signal generator, or some other means of producing a 455kHz signal.
8. Band edge markers, ie. signals at 1.8MHz, 3.5MHz, etc.
9. Variable attenuator 0-50dB.
10. A general coverage receiver is useful for checking VFO, crystal oscillator frequencies, etc., and also for monitoring the final completed equipment on transmit.
11. RF milivoltmeter with probe.

The following instructions may not all need to be followed. It may be, for example, that the receiver is performing well but the transmitter suffers from low drive on one band only. In this case only part of the procedure need be carried out but **BEWARE!** Adjustments carried out to, say, the 28MHz coils will affect the alignment on 21MHz and, to a lesser extent, on 14MHz, so make sure that adjustments carried out to the alignment on the higher frequency bands have not drastically upset the alignment on the lower bands. The rig should be allowed to warm up for at least 15 minutes before any adjustments are made.

Checking 100kHz calibrator.

Tune a spare receiver (the family portable will do) to the BBC Radio 4 transmission on 200kHz, and place it close to the rear of the KW2000 adjacent to V22 and X14. Press the calibrator button on the KW2000, and adjust the coupling between the external radio and the rig until a satisfactory beat-note is obtained. The lower this is in frequency, the nearer the calibrator is to 100kHz. Adjust C158 to obtain zero beat on the external receiver.

Alignment of 455kHz IF stages

It is assumed that the receiver section of the KW2000 is now working to some degree and showing some signs of life. If it is totally dead, go back to the voltage checks listed earlier, as slight misalignment will not make the receiver totally dead.

The rig should be set up as in **Fig. 1**, with the RF gain at maximum and the AF gain midway. Tune the receiver to a stable signal (the author uses a harmonic of the shack frequency standard), and adjust the tuning so that the signal is in the centre of the passband (see **Fig. 2**). Adjust the core of L27 and the upper and lower cores of IFT4 for maxi-

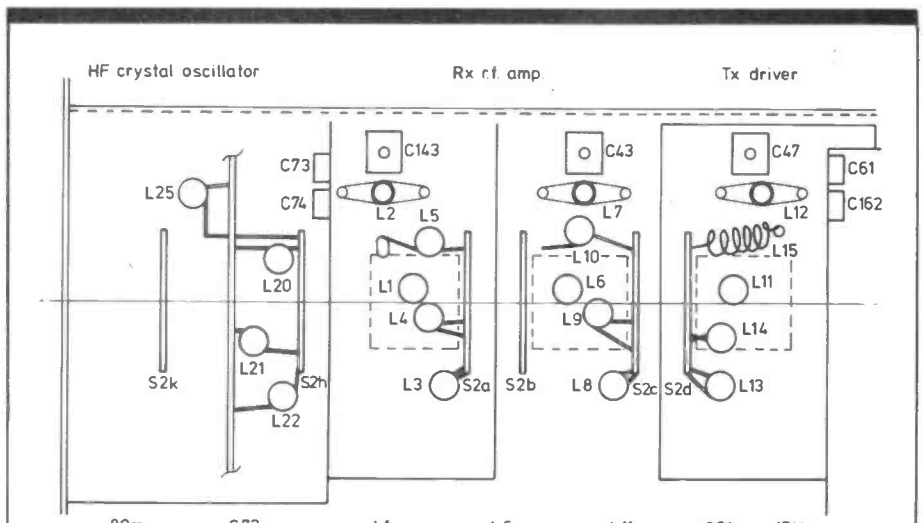

FIG.4. Location of tuned circuits.