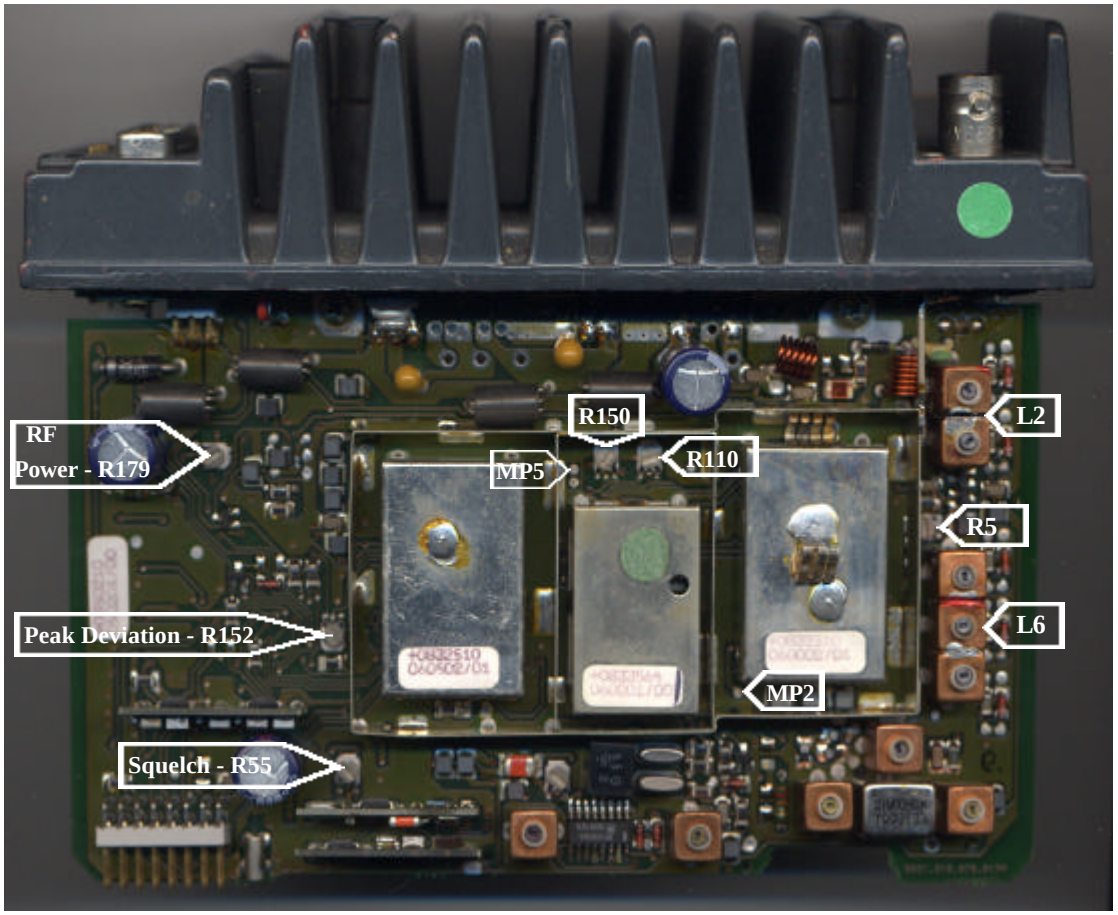

ASCOM SE-550 ALIGNMENT INSTRUCTIONS

- Change the firmware EPROM to the PA4DEN (R.A.T.S. V3) version.
- Switch the radio on and set it to 70.400.000MHz. Attach a suitable dummy load to the aerial socket.
- Adjust the Rx VCO tracking – monitor the voltage on MP2 with a DVM and adjust R110 for 5V.
- Adjust the Tx VCO tracking – monitor the voltage on MP5 with a DVM and adjust R150 for 5V. (This voltage is correct in receive mode if the radio is put briefly into transmit).
- Adjust R5 clockwise for best rx sensitivity (maximum resistance).
- Adjust cores of double-coil L2 and triple-coil L6 for best Rx sensitivity. (An HF transceiver transmitting into a dummy load at minimum power on a sub-harmonic of 70.4MHz will give a suitable test signal – try 3.520000MHz, 7.040000MHz, 10.057143MHz or 14.080000MHz.)
- Adjust the squelch - attach an aerial to the radio and find a channel that is clear of interference. Adjust R55 so that the squelch just closes. Check the setting by tuning across the band.
- Adjust Peak Deviation (R152) up a bit to taste (the factory setting makes the radio sound very quiet). If a deviaton meter is available, a peak setting of 4KHz appears to give good results. Be careful though, it will go much higher ! If a meter is not available then adjust it on-air with the help of a friendly local.
- The RF Power Adjustment (R179) should be set correctly – 25W output with the software power adjustment set to maximum. Power will go higher – to about 35W – but watch the heat dissipation.

G4KWT – February 2004