



Drake Mods - R4C

Authored by VE3EFJ

### 3.7 R4C EVOLUTION

The information contained here is accurate but not necessarily a complete dossier on the R4C as it changed over the years. Updates will be made to this section as additional information is acquired.

- R4C ser no above 16121  
Revision date - Feb 1973

All mixer tubes 6HS6. First and 3rd mixers cathode injected. Second mixer is a dual gate MOSFET. The IF chain following the first crystal filter is 6BA6 1st IF, Noise blanker and then 2nd mixer. 4 position filter select.

- R4C ser no above 18726  
Revision date - March 1974

All mixer tubes 6HS6. First and 3rd mixers cathode injected. Second mixer is a 6BE6 with a JFET (2N5949) buffer. 5 position crystal filter selection. 3 diodes in series across the S Meter to compress the meter range. 2 S Meter zero pots were employed - one internal and one external.

- R4C ser no above 21000  
Revision date - Nov 1974

All mixer tubes 6EJ7. First and 3rd mixers grid injected. Second mixer is a 6BE6 with an JFET (2N5950) buffer. 5 position crystal filter selection. Some intermediate models in this transition period may not have installed the new tapped IF transformer, T7C.

- R4C ser no above 25900  
Revision date - Jan 1976

All mixer tubes 6EJ7. First and 3rd mixers grid injected. Second mixer is a 6BE6 with an JFET (2N5950) buffer. 5 position crystal filter selection. T7C IF transformer. Very little electronic difference to the above model except a 125 volt zener diode at the junction of R12 and R13 (regulated B+ to the plate of the 6BE6 mixer).

This could be the latest model in the series before production was halted. From the schematic, the differences between this model and the 21000 previous is little.

Amongst the 4 series known, Drake spent considerable effort changing the mixers with particular interest in the IF chain following the 1st crystal filter. While no direct measurements have been taken, there appears to be little operational difference between the first in this list and the latter other than the extra filter position and the tapped T7C IF transformer.

As can be expected, it is considered that the later model is superior to the early model. There is a natural tendency to want to believe that this is true, but practical application does not seem to back this up. One of the attractions for some enthusiasts is the vacuum tube processing of the RF signal in the belief that the early model dual gate MOSFET is automatically inferior. The fact that all models in the later series have an JFET in the RF chain is somehow strangely irrelevant to this position.

Some later model R4C receivers may have metal gears in the PTO gearbox instead of nylon.

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