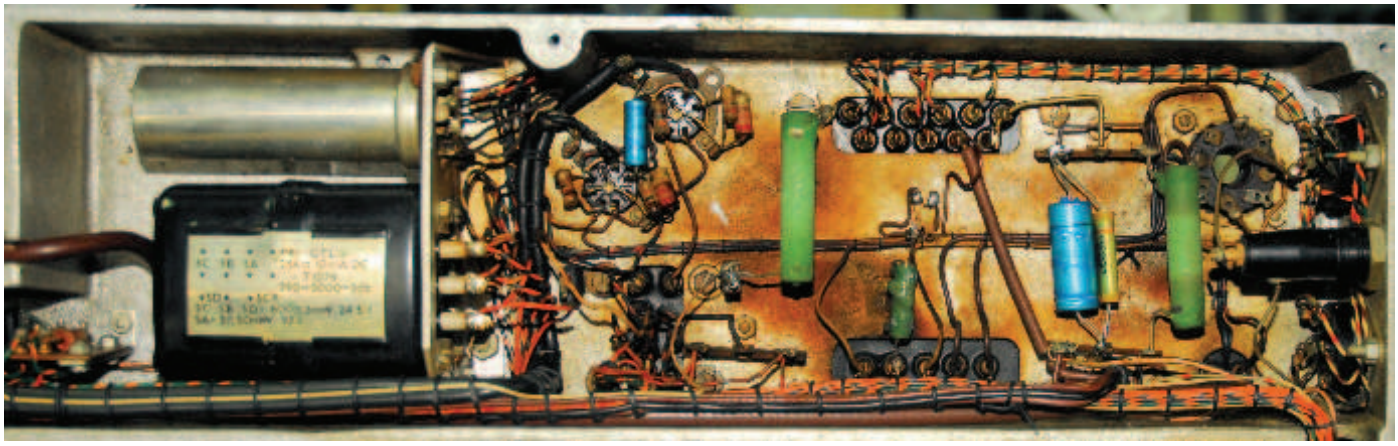
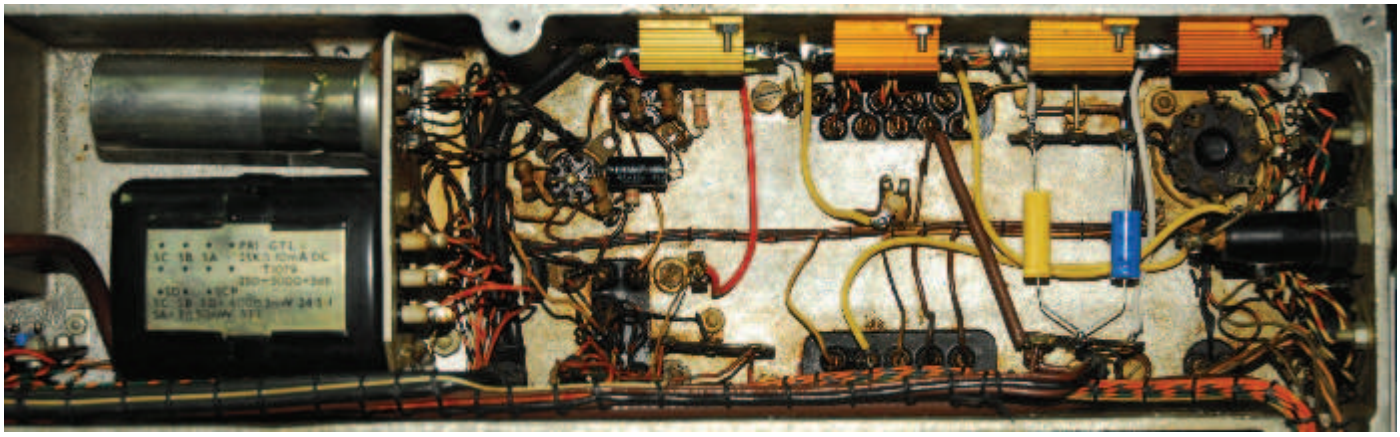
Racal RA17 Ser. No. N371,
Initial report, 08/03/19

This is the first official progress report on the refurbishment of RA17 MK1 serial number N371. This receiver had been extensively modified by parties unknown. These modifications included the addition of a 40MHz pick-off, re-purposing of the rear panel HT connections, alteration to the external speaker wiring and headphone outputs and the removal of one of the wafers on the System Switch.

Now that all these modifications have been reversed, including the fitting of a replacement System Switch, work has progressed well on the actual refurbishment. Not unexpectedly, the PSU compartment exhibited the usual smoke stains from the 47-ohm resistor. As an original MK1, this receiver had 'escaped' having an HT fuse fitted. This was duly carried out. The two yellow wires in the second photograph go to the fuse holder. All three wire-wound resistors have been replaced with modern 25W metal-clad types. Although it is clear that some capacitors had been replaced in the PSU, this was probably carried out over 40 years ago, thus I went ahead and replaced all the tubular and electrolytic capacitors, including re-stuffing the smoothing pack and fitting a 100nF capacitor across the 220-ohm cathode resistor on V23.



PSU/Audio compartment before



PSU/Audio compartment after

Interestingly, the original vitreous-enamel 47-ohm resistor (the source of the smoke damage) had got so hot as to blister the enamel coating!! Had there been an HT fuse fitted, this would not have occurred. It is likely that a fault had occurred in either the 1st or 2nd VFO modules since these are not original MK1 sub-assemblies. Both carry NATO Stock numbers,indicating that they came from a spare-parts store. Also the current VFO1 is MK2 standard and the current VFO2 is the type fitted to RA17Ls.

Another fault may have occurred in the 4th Mixer and 37.5MHz compartment, indicated by the obvious damage to the heater supply choke for that section.