

Roberts RMB

I've been saying No More Radios for a while but have always fancied a Roberts valve set so when this one turned up cheap I couldn't resist.

When I first tried it the only sound it made was faint crackling when the volume control was turned, dirty pots have their uses as at least it proved the OPT and output valve were OK.

I checked the valve heaters, which were fine, and then the HT which wasn't; it was 30V and should be 90V. This set uses metal rectifiers; a half-wave one for HT and a bridge for LT.

Changing the HT fart-stick for a 1N4007 and two 330Ω resistors in parallel (to share the power) brought this up to 110V - which was too high. This resulted in louder crackles but no actual signals.

Next job was to change the five wax capacitors, all of which leaked like taps, and then it did start to work, albeit not brilliantly.

The next thing was getting the HT to a sensible level so I dare leave it on for more than a few seconds and properly investigate. I stuck a 1KΩ resistor after the 1N4007 which got it down to a respectable 86V - had it not I'd have bunged an LM317 in.

Performance still left a lot to be desired so I started checking resistors and found R5, R8, R11 and R13 were all o/c.

I couldn't jump in and change these as I hadn't got spares. Besides that I couldn't believe that the set could be working at all if they had all gone.

Next morning I checked them again and found they were OK. Ones that big can't really be checked with an AVO and my usual DMM only goes up to 2MΩ. I'd used another which is supposed to be auto-ranging but isn't.

I was now having a battle with myself not to jump on the IFTs and tried injecting a signal at the volume control and this wasn't very loud either.

I then tried a different set of valves and it worked. It didn't take long to narrow the problem down to a duff DAF91; I'd already suspected that the fault must be in that area if it wasn't alignment. I'd even got a spare so that was handy.

Cosmetically the set was in good nick, needing only a good scrub. The leather covering of the handle was completely missing but I soon re-covered that.

After I'd put it all back together it seemed to sound distorted. Another check around found that the LT was just under 1.1V, it had been about 1.3V when I first tested it so that rectifier was obviously failing too. I replaced this with four 1N4007s but this revealed my 'new' DAF91 to be microphonic. Luckily with everything else in order the old one is OK for the strong stations I listen to at least and will be changed in due course.