

Eddystone Model S.750, Serial Number FB0472

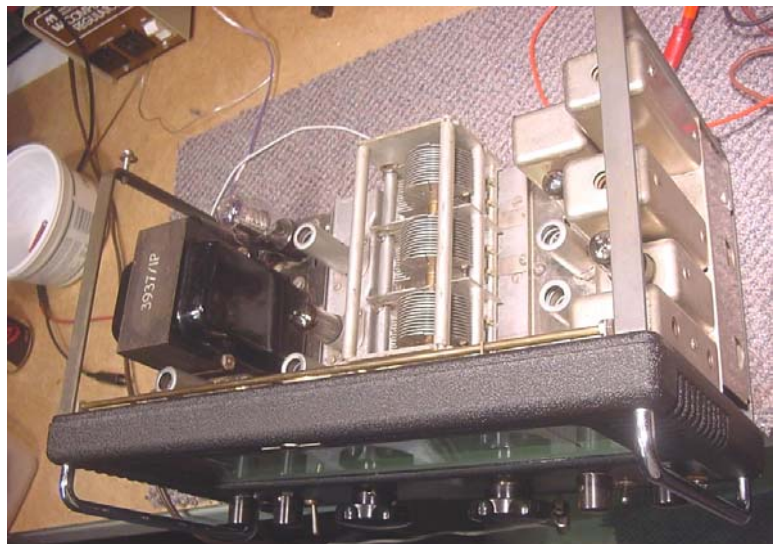
The S.750 is one of my favourite Eddystone sets. This one is my second S.750 restoration - the first already being documented in an article on the Eddystone User Group (EUG) website. This S.750 was kindly donated to the *Society for the Preservation of Antique Radio in Canada* museum (SPARC) in Coquitlam, BC, back in January, 2009 by Fred Kapogines in Guelph, Ontario.



The QRG notes that this set was one of a production run of only 79 model S.750's built at the 'Bathtub' fitted with a 110v 25Hz

power transformer. This variant on the standard production was needed to suit the Ontario mains power system in the 1950s. According to serial number information in the QRG this 25Hz set dates from February, 1954.

I find the cleaning process to be quite therapeutic - and this S.750 now looks 'Bathtub-fresh' again, although there is some minor discolouration of the scale plate under certain lighting conditions. For set

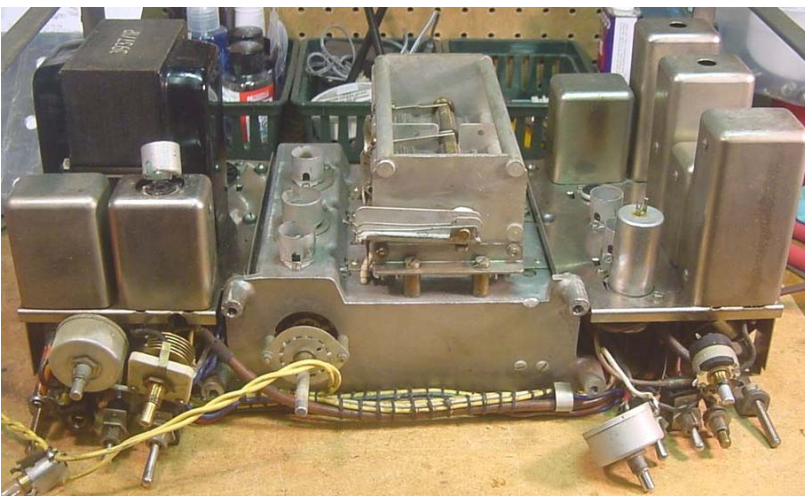
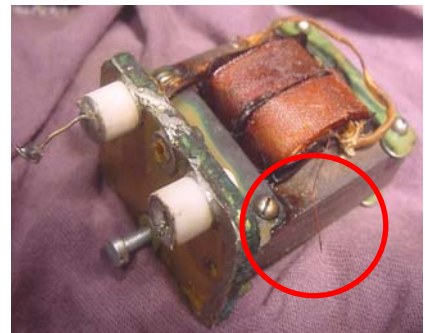


cleaning I use 75% rubbing alcohol (general cleaning), acetone (removal of solder flux residues) and lighter fluid (for wax and grease), mildly-soapy warm water (dial glass and scale), extra fine grade steel wool/Brasso (tarnished metal), and Silvo (silver plated parts), applied/removed with Q-Tips, cotton wool balls and/or several cloths as needed.



This S.750 was not working on arrival due mainly to an open-circuit HT choke, now repaired: the fault was a corroded wire internally on one of the connection posts. I found that the choke can

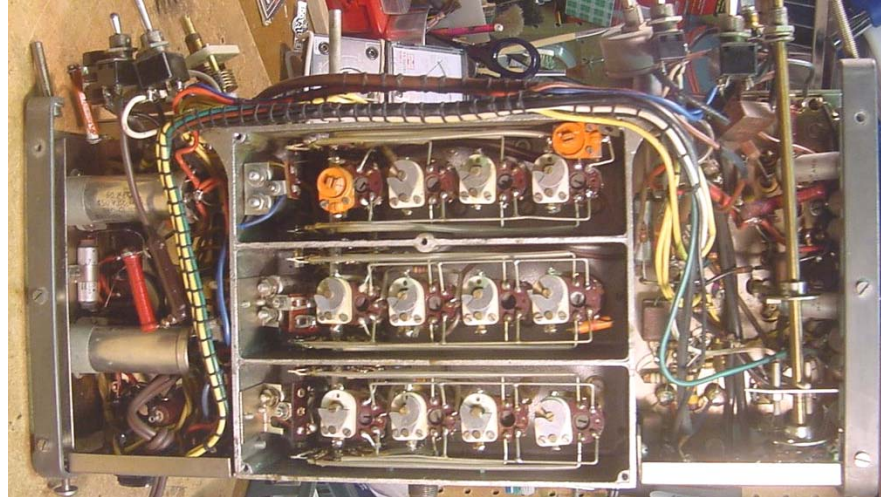
be opened-up quite easily by cutting the solder seal with a knife blade and then re-sealed by soldering and/or with epoxy. I re-formed the electrolytics, changed-out the dropper resistor to the VR150 voltage regulator (incorrect resistor value fitted as a previous repair) and the cathode resistor in the RF stage (68 ohms had risen to 230ohms) and re-soldered a silver mica capacitor that had come undone in the coilbox.



Other components were found to be within tolerance and valve voltages tested ok when 110v AC was applied to the set (unfortunately mains power on

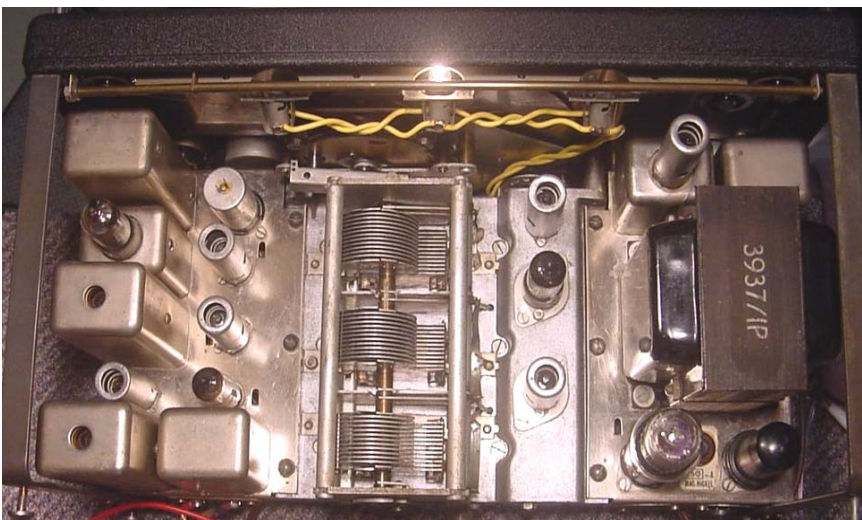
this side of the pond these days is between 115 and 120v, so this increases the HT voltage significantly and also adds some 10mA to the HT current draw).

The front panel casting was re-finished in black wrinkle finish powder-coat - the cabinet is also undergoing



similar treatment. The knobs were cleaned/polished with 'Novus #2 and #1', a mongrel knob from an HRO was replaced with a correct type, the finger-plate was touched-up with black and silver marker pens, the BFO valve base was repaired (the skirt superglued back in place) and a new 5Z4 rectifier tube fitted. I also completely re-furbished the gearbox (there is an article on this downloadable from the EUG site) and fitted two replacement spool-pulleys/dial cord from a 'parts set' owned by another SPARC member (one of the original pulleys had badly-worn teeth and the

dial cord was fraying). The tuning is now beautifully smooth and the set works well.



While I was aligning the set I noticed that the AGC line

was going positive by a couple of volts with no signal applied to the set. This also had the undesirable effect of increasing the HT current draw by several mA under weak/no signal conditions. Having checked the AGC line passive components, which were all ok, I suspected that one of the RF or IF valves could be faulty - replacing a 6BA6 (V5) in the 85kHz IF stage cured this.

The set was returned to the SPARC museum on April 19, 2009 - first though I spent the morning listening to 20m on the set. There was quite a bit of activity and the S.750 gave a very good account of itself - excellent sensitivity and stability, with the variable-selectivity filter proving very useful. SSB was easily resolved by winding the AF gain almost fully up and adjusting the RF and IF gains to ensure adequate BFO injection, offsetting the BFO about 1.5kHz from the received signal.

Gerry O'Hara, VE7GUH - SPARC member, Vancouver, April, 2009

