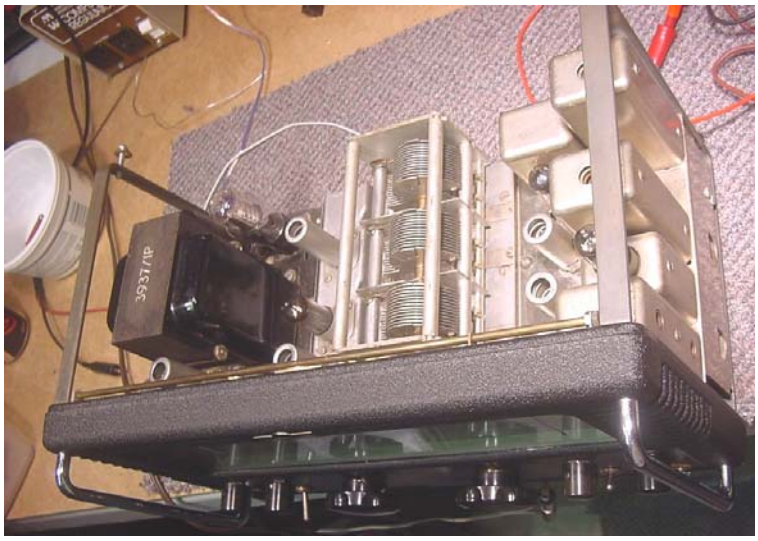
Eddystone Model S.750, Serial Number FB0472

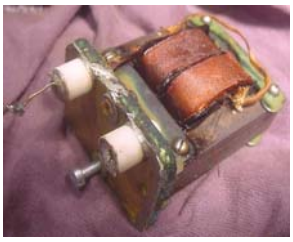
The S750 is one of my favourite Eddystone sets. This one is my second S750 restoration – the first being documented in an article on the Eddystone User Group (EUG) website. It was donated to SPARC in January, 2009 by Fred Kapogines in Guelph, Ontario.

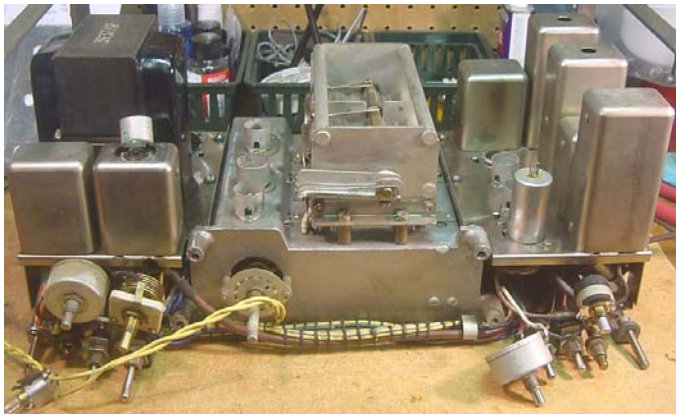
Research has shown that this set was one of a production run of only 79 model S.750's built at the Eddystone factory (the 'Bathtub') in Birmingham, UK fitted with 110v 25Hz power transformers. This variant on the standard production model (of which 2054 were built) was needed for the Ontario mains system in the 1950s. According to serial number information on the EUG website, 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 discolouration of the scale plate under certain lighting conditions. I use

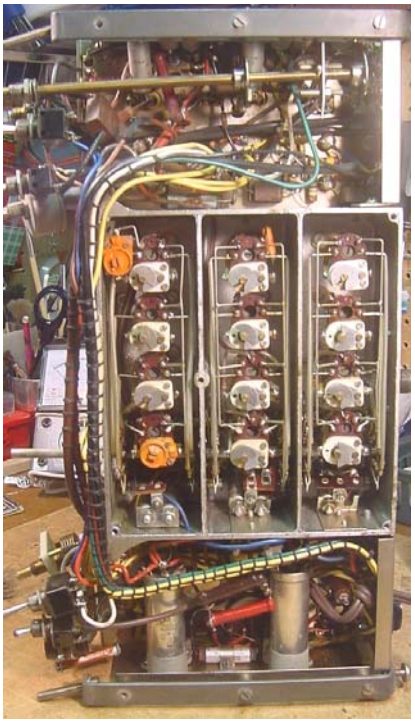


alcohol (general cleaning), acetone (solder flux residues) and lighter fluid (wax and grease), mildly-soapy warm water (dial glass and scale), Brasso (tarnished metal), and Silvo (silver plated parts), applied/removed with Q-Tips, cotton wool balls and/or several cloths.

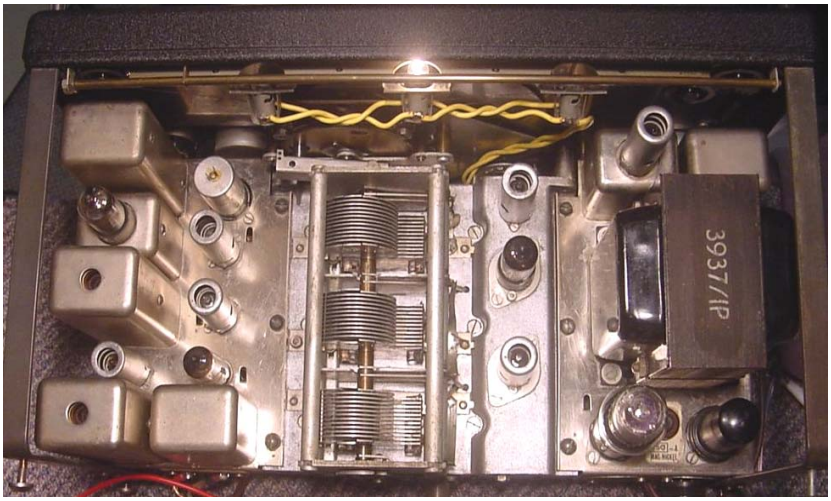




This S.750 was not working on arrival due mainly to an open-circuit HT choke, now repaired: the fault was a corroded wire internally on one of the connection posts. I found that the choke can he opened-up quite easily by cutting the solder seal with a knife blade and then re-sealed by soldering and/or with epoxy. I re-formed the electrolytics, changed-out the dropper resistor to the VR150 voltage regulator (incorrect 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 tube voltages tested ok when 110v AC is 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 undergoing similar treatment at the moment. 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 also) and fitted two replacement spool-pulleys/dial cord from a 'parts set' owned by Pat Jones (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. 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 SPARC on April 19, 2009.

Gerry O'Hara, VE7GUH – Eddystone enthusiast and SPARC member