Restoration of an Eddystone EC10 MkI Solid-State Receiver (Part 2) - by Gerry O'Hara, G8GUH/VE7GUH

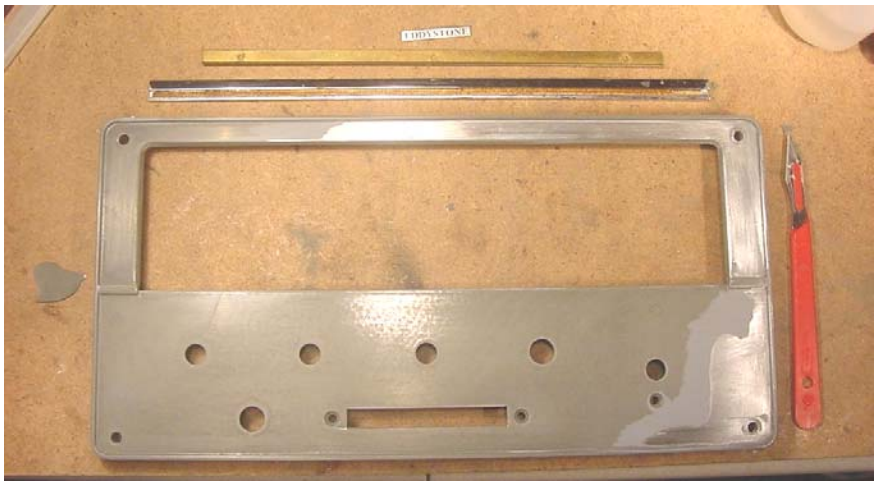
Introduction

In Part 1 of this two-part article on restoring an Eddystone EC10, I provided some background and context on this most popular and successful (in terms of sales) of all Eddystone receivers to emerge from the 'Bath Tub'. I outlined mechanical construction features and maintenance issues, together with electronic checks and repairs, as well as the reversal of some wiring modifications that had been undertaken by one my set's former owners – including that of replacing the BFO with a crude tone control and wiring the dial lamps to the BFO push-button switch. The sets cosmetic appearance was temporarily improved by touching-up scratches on the case and the flaking paint on the front panel casting. The fingerplate and knobs were, however, in such a poor condition that I decided to replace these with new parts obtained from Ian Nutt. Ian has a stock of Eddystone spares in the UK, but until recently spent much of the time 'across the pond', so I had to wait for his return to the UK at the end of April before he could send me the requested parts. In the meantime, I lived with the 'touched-up' receiver and compared its performance with some of my other sets. After a few weeks though the front panel was starting to annoy me and I decided to tear the set down again and re-finish it…

Re-finishing the Front Panel

'To powder coat or not to powder coat' – that was the question. Powder coating provides a hard, very durable finish. Locally there are several small coating shops that provide this service, often for a very minor cost if you can accept the same colour as the current batch of parts they are coating. Grey is a fairly popular colour for electrical switchgear, which is a very common article for coating shops to be dealing with, however, it is pot luck as to what shade of grey they will be using when you take your piece in to be coated. The front panel of these sets is, like the 'MkII' style valved set cases, finished in a lighter grey than the case. However, by checking the sets I have in my modest collection, ones in the local radio museum (SPARC), photos on the EUG site and on EBay auctions, there appears to be some variation in the shades of grey used over time on Eddystone sets and, as per my EC10 example, some time-related discolouration – maybe sunlight and/or

oxidation. Given the small size of the exposed areas of the panel casting (most is covered by the fingerplate), and that the areas where the original finish was intact it was adhering well, I decided to try spray painting as a first choice, thinking that if it did not work too well I could always strip it all off and powder coat it. I took a trip to one of the local car spare shops (Lordco) and selected a large can of grey enamel finish spray paint manufactured by PlastiKote for about £4 ($8). This colour was a little lighter than the original, but certainly close-enough to look the part. I had half a can of primer left over from my S.750 project that specified it was good for both bare metal (including aluminium) and also on existing paint finishes.

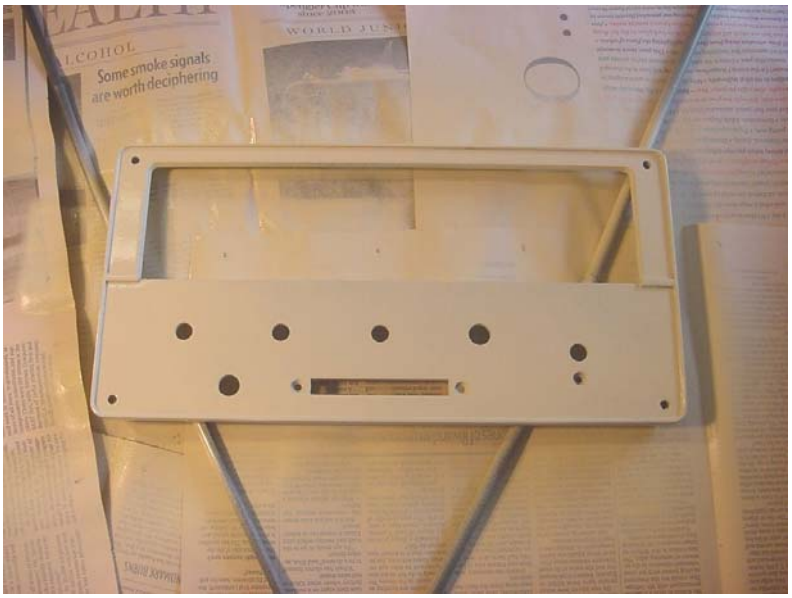


Above: the front panel casting in preparation for painting: loose paint chipped off and sanded (note large paint flake on the bench to the left of the panel). The scale glass mounting hardware and that all-important Eddystone badge are shown above the panel. Below: top edge of the panel showing feathered edge of the original paintwork and underlying aluminium casting

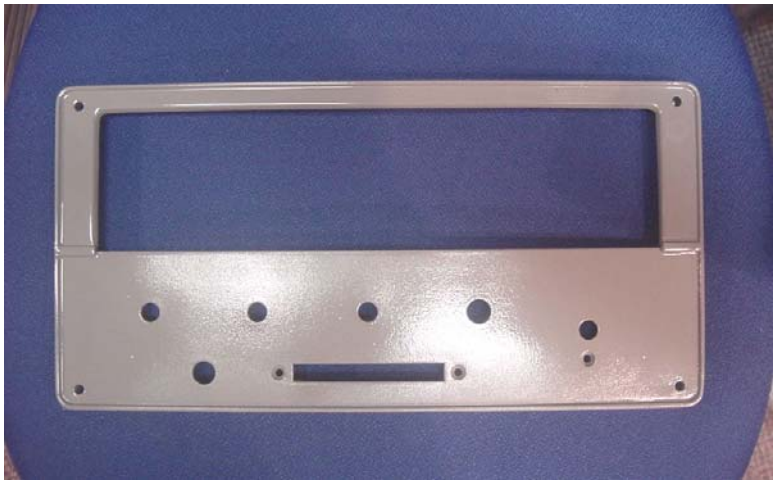
I prepared the surface of the panel by chipping off the flaked paint areas (I had glued them on during my temporary re-finish work), chasing these back to where the original paint was adhering well to the underlying aluminium. I then used 600 grit 'wet and dry' sandpaper with a little water to clean the exposed aluminium , roughening the remaining original paint and feathering the edges of the existing finish - photos above.

I set up a spray area on my garage work table on a reasonably warm April day and gave the prepared front panel two coats of primer (photo at top of next page). This worked well and the primed surface had a nice even matt finish ready to take the enamel spray paint. Wanting to obtain the best finish possible, I decided to leave this until I had access

to the spray booth at the SPARC radio museum workshop the following week. I gave the panel a total of six coats of the grey spray enamel in the spray booth, this giving a nice thickness that closely resembled the original. Some slight 'orange peel' effect was apparent along a couple of the sides and this was removed later using some 'T-Cut', taking care not to rub along the corners where it is all too easy to rub through the paint. I was pleased with the finish and decided that I would not bother with powder coating.



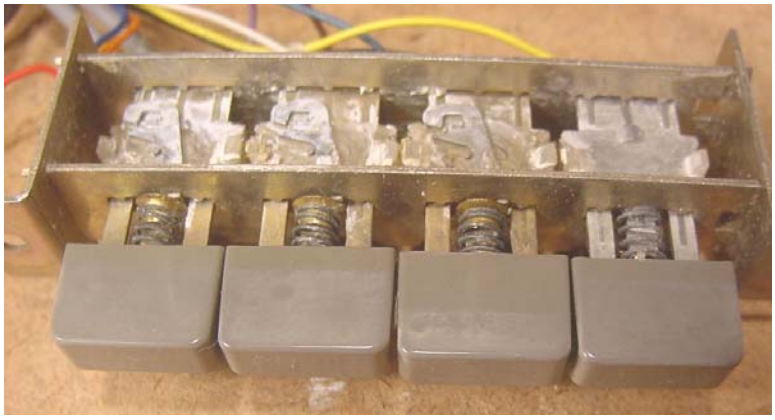
Above: the front panel casting being primed on my garage workbench – not ideal conditions, but ok on a dry day. Below: the panel after applying 6 coats of grey enamel spray paint in the SPARC spray booth – looks almost 'Bath Tub fresh'…



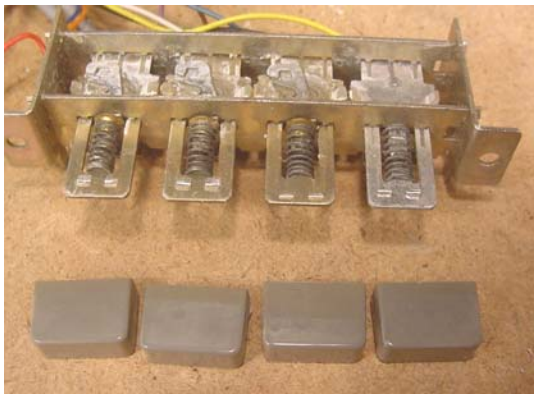
The touch-up job on the case was not getting to me in the same way – it was subtle enough that I did not notice it unless I was looking out for it (unlike the front panel that annoyed me constantly!). I decided that I would just leave it as it was – at least until I had some other powder coating work to be done.

Push Button Cosmetics

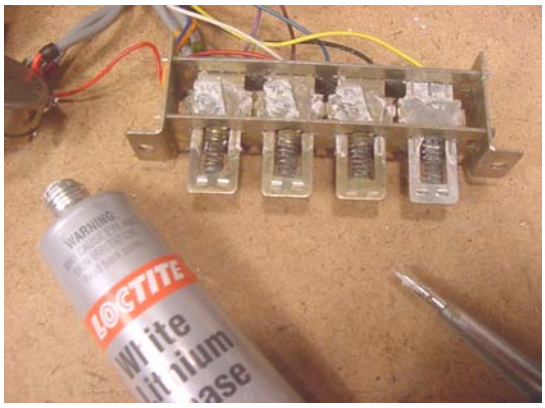
The grey plastic push buttons on the switch bank were discoloured on their top surface (photo, right), perhaps due to light exposure over many years – greenish-grey streaks that could not be entirely removed with plastic polish

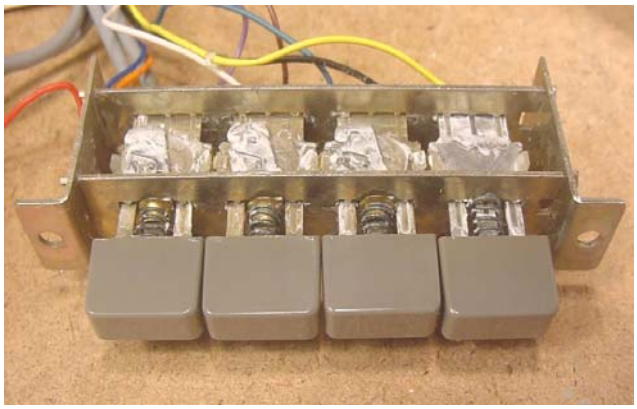


(Novus # 2 or #3). This was resolved by removing the plastic buttons by carefully prizing them from their metal shafts, flipping them over and re-inserting them onto their shafts – thus the discoloured side of each button was now underneath and unseen (photo, left). While the switch was dismantled I took the opportunity to clean the latching mechanism and apply some fresh white lithium grease.



Above left: plastic pushbutton covers removed from the mechanism. Below left, applying fresh lithium grease to the switch latching mechanism. Below: the serviced switch bank with the cleaned plastic covers fitted 'upside down' to show their better side to the set's operator

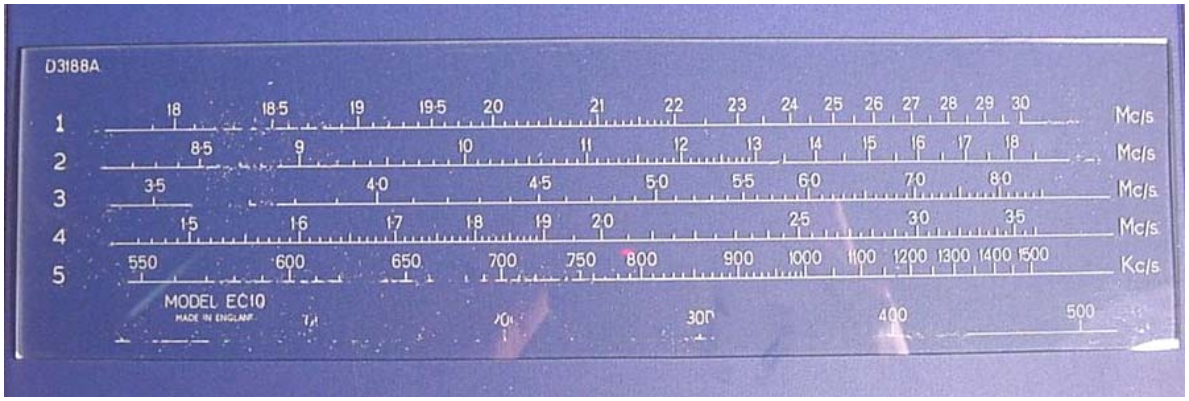




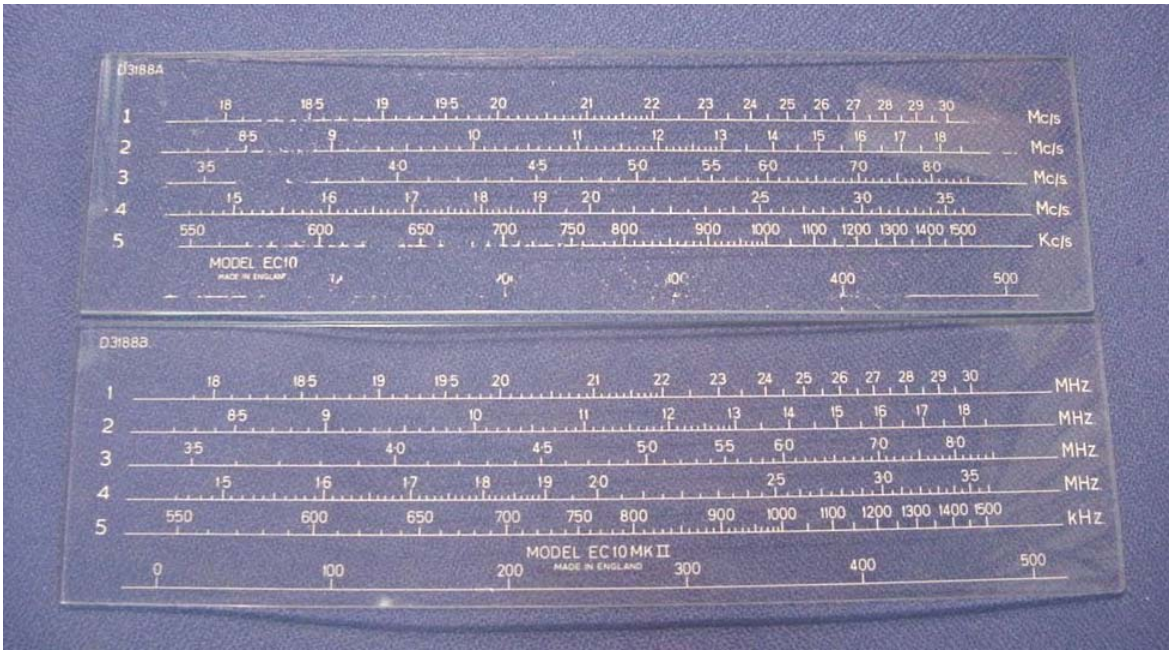
Dial (Scale) Cleaning – Disaster Strikes!

In preparing the front panel casting for re-finishing, I had removed the scale glass and the chrome-plated rebated strip that retains its lower edge. Although I had given the dial glass a quick clean-up in my initial cosmetic work on the set (Part 1 of this article), when it was out of the front panel casting I noticed that the scale glass was still quite discoloured (a dirty film mixed with nicotine residue), so I decided to clean it some more... Now, I have had some 'experience' with cleaning scale plates and dial glasses over the years and I am always very wary of doing so (I clearly remember one particularly bad experience with a Philco dial) – if you read my other restoration articles you will note that I always purport exercising extreme caution as it is so easy to damage the scale as the printing is usually soluble in cleaning agents - even plain water. I therefore usually recommend using only lukewarm water with a couple of drops of detergent in it and a piece of cotton wool, testing this on a small area of the scale that is not too obvious (if such an area exists). However, if the scale is only slightly discoloured, I would recommend considering just removing any loose dust with a soft brush/compressed air, cleaning the non-printed side with water/lens cleaner fluid (in the case of a printed glass scale) and then leaving well alone…

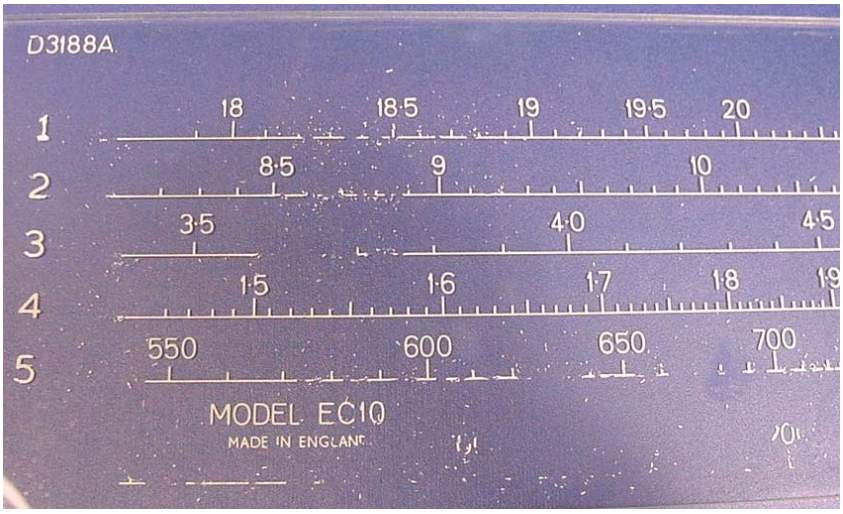
So, taking on my usual cautious hat, I gently cleaned the corner of the scale where the part number is located. This seemed to be ok as per my earlier cleaning efforts and I dabbed it dry with a paper towel. I then did the same for the rest of the scale – big mistake! At first it seemed fine – I removed the grime with one piece of cotton wool (it was quite bad) and then wiped over with another dampened piece, dabbing it dry immediately with a paper towel as before and… the lettering came away like white dust. The vernier scale almost completely vanished (photo, below) and there was damage to some of the other scale markings also. In addition, the lettering that had remained intact



was now extremely fragile/flaky and could almost be blown off the glass… Aaaargh! I was a little less than pleased at this as you can imagine – lets face it, between the scale and the fingerplate you have 90% of the visual appeal of a radio! Fingers crossed – Ian Nutt to the rescue – and sure enough, Ian, who was stateside when I contacted him, said he recalled having several MkI scale glasses in stock and he would check them out when he returned to the UK. Unfortunately when he did this they had all suffered a similar fate and the lettering was flaking off them also – likely due to damp storage conditions sometime in the past. However, Ian did have an EC10 MII scale glass that he could supply – this has identical scale markings but has the 'MODEL EC10 MKII MADE IN ENGLAND' motif on it which is central to the scale and not offset to the left as in the MkI scale, which of course does not have 'MkII'(or MkI for that matter) on the motif either.



Also the MkII dial is marked in MHz and KHz, not Mc/s and Kc/s as in the MkI (photo at the bottom of the previous page). Not being a purist and more than a little desperate, I ordered the new MkII scale glass (fingers crossed it did not break in the post), along with a new finger plate and knob set (per discussion in Part 1 of this article) from Ian.



So, be warned! – if you don't want a mess like on the photo to the left, try to avoid cleaning the side of your EC10 scale glass that has the lettering on it, no matter how careful you may be – Eddystone seemed to have used some very unstable paint composition for this that degrades on contact with water (or even moist air). I am one of the most cautious guys when it comes to cleaning things and this one caught me out – particularly as I had already cleaned it once before. I would suggest that if you must clean it, use water-moistened Q-tips and try to work very carefully around all the lettering.

Front Panel Replacement

So, here I am on the last day in July with the replacement parts just arrived from the UK (Ian had done an excellent job in packing the scale glass for shipping – wrapped in tissue, strapped to a piece of plywood and then bubble-wrapped in a Jiffy envelope), the chassis/circuit boards in a bag, the dial mechanism in

Below: the old and new fingerplates – both MkI, but note the differences on the BFO and switch bank markings

another bag, the re-finished front panel casting wrapped in tissue paper and a box of screws, nuts, washers, metal and rubber strips that I had forgotten where they all went – it had been some 4 months since the tear-down after all. So the first job was trying to remember how the thing was assembled – after a half hour I had sussed it out and started to re-assemble the set, described step-by-step in the following bullets:

- The first job is to install the scale glass into the front panel. To do this, insert the rebated chrome strip onto the lower edge of the scale aperture in the front panel casting. This was easier said than done as I had built up quite a thickness of paint in order to reproduce the original smooth, high-gloss finish. After a little coaxing it went into the aperture ok and I used a G-Clamp and strip of wood to pull it the last few millimeters into place so it was firm up against the panel
- I decided to modify the new MkII scale glass by changing the MkII to MkI (not very authentic to the purist, but less misleading!). No problem doing this with a scalpel…
- Then slide the lower edge of the scale glass into the rebate on the upper surface of the chrome strip and insert the strip of angled rubber into the upper edge of the front panel, between the top edge of the scale glass and the panel, gentle pushing the scale glass into place. Secure the scale glass with the strip of angled metal and three small screws that fit through the rebate along the top edge of the front panel casting
- Install the dial mechanism onto the chassis sides and central plate: orienting so that the three tuning gang threaded spigots align with the holes in the rubber bushings on the tuning gang mounting bracket
- Place a lockwasher on the wavechange switch collar (this cannot be inserted later and if not present the switch detent mechanism will rotate)
- Next, offer up the front panel assembly to the dial mechanism and secure in place with the three self-tap screws that pass through the central chassis plate, ensuring you place the metal strip (spacer) between the chassis plate and the rear of the dial mechanism. Insert the long screw below the tuning shaft and secure with its locknut. Secure the three tuning capacitor threaded spigots with their locknuts
- Temporarily install the chrome handles with their 2BA bolts – here I made four small oval washers out of greaseproof paper and placed then between the chrome handles and the painted front panel surface – the aim being to reduce the risk that the paint will stick to the chrome handle when the bolts are tightened and break-away from the front panel casting when the handles are next removed
- Turn the dial mechanism until the logging scale is at '500' and ensure the tuning capacitor gang is fully open (un-meshed), then tighten the grub screw on the flexible coupling connecting the drive mechanism to the tuning gang shaft
- Install the switch bank using the two screws either side, ensuring the buttons do not foul on the sides of the cut-out in the front panel
- Insert the AF and RF gain pots, phones jack and BFO variable capacitor (remember the lockwashers). In my case I had to source a suitable BFO variable capacitor from my junkbox, trim the shaft to fit and wire it into place, as my set had been modified by someone who decided that a tone control was of more value than a BFO… (see Part 1 for details of that abomination)

- Remove the chrome handles, place the fingerplate onto the front panel, replace the chrome handles and secure the controls in place with shaft nuts, taking care not to score the fingerplate (preferably use a nut spinner and a guard washer cut from a piece of Teflon sheet - as used to line baking trays, or even thin cardboard or stiff paper), making sure the flats on the control pots are orientated properly so the knobs can be fitted in their correct alignment with respect to the panel markings (grub screw seating in the flat). For the wavechange switch, rotate it until the switch contacts are in the Band 3 position and the flat on the control shaft is at the bottom for correct alignment – when tightening the shaft nut (a brass collared affair), ensure that the detent plate does not rotate

Above: Fitting the new fingerplate – take care when tightening those shaft nuts!

Above: The re-assembled set – looking good, if not all-original!

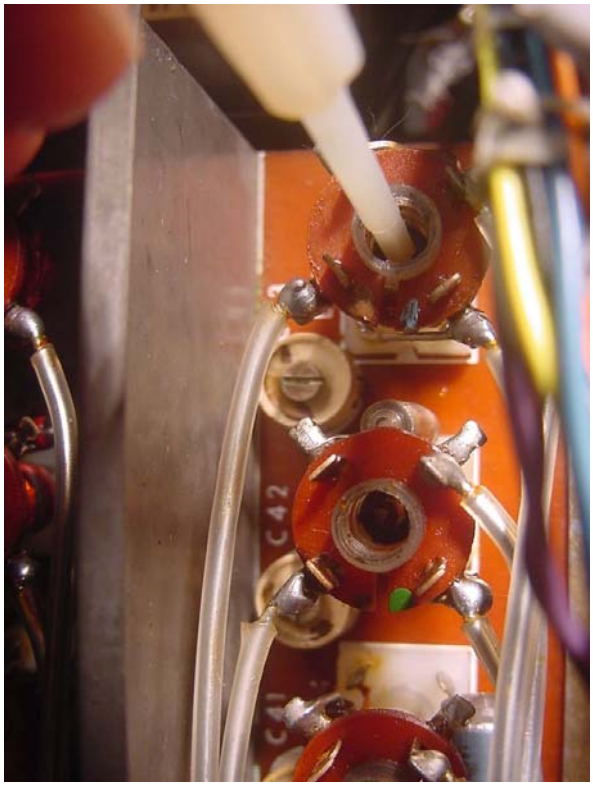
- Fit the knobs and your done

Re-Alignment (again)

I undertook a preliminary re-alignment when I first worked on the set, following replacement of a couple of the RF transistors, so I could do some performance comparisons with other sets. However, after taking the front panel off/replacing it, I felt that another tweak was probably needed.

As noted in Part 1, the alignment procedure for the EC10 is very straightforward and is detailed in the sets manual – so is not repeated here. I would remind you that you are probably by no means the first to have a go at this and that a 'mad twiddler(s)' probably got there long before you, so be careful of nasty surprises lurking in those coil formers. One of the dust cores was very stubborn in this set and needed to be coaxed quite a bit. Also, the rubber filaments ('knicker elastic') meant to prevent the cores from vibrating out of place were mostly perished and were not doing their job – actually when they get into this state they can jam the cores and result in damage. Therefore before aligning the first time, I opted to carefully remove each slug, one at a time, clean the coil former threads and dab some Rocol Kilopoise onto the slugs.

I forgot to mention in Part 1 that I found that the small ceramic trimmers used in the tuned circuits had jammed in place (maybe a good sign that not many folk had fiddled with them over the years) – these needed a firm twist with a screwdriver to loosen them so they could be adjusted with a trimming tool during alignment (see photos below). Thankfully none of these little guys broke in the loosening process.

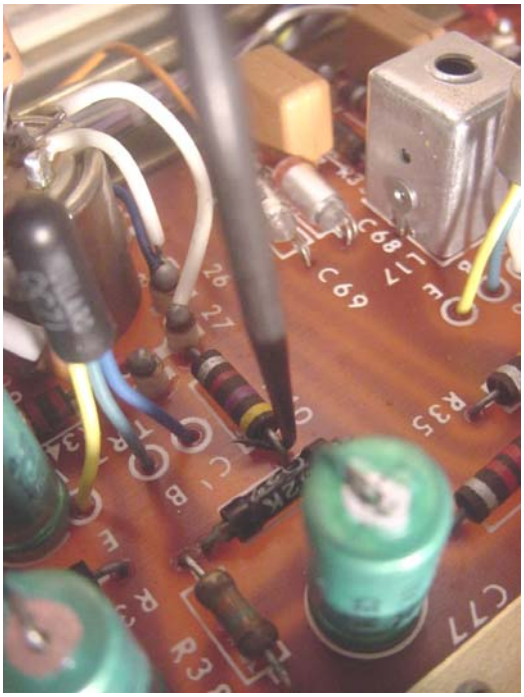


Above left: adjusting the Range 5 oscillator coil (L16). Above right: freeing the Range 5 oscillator ceramic trimmer capacitor (C43) with an insulated-shaft screwdriver before adjusting with a trim tool

Fried Eggs Anyone?

On switching the set on again after it being on the shelf for a few months in bits awaiting for the spare parts to arrive, I noticed an increase in the previously-noted background noise that was not affected by the AF gain control. Over the couple of days I was working on the set this seemed to get even worse and eventually sounded like eggs frying. Suspicion was on the first AF stage of course – comprising an OC71 (TR7) and its four carbon composition bias resistors (R37, R38, R39 and R40). There is also a resistor (R41) that forms part of the supply line decoupling to the first audio and driver stage. As both R39 and R40 are bypassed to ground with large (100uF) electrolytics, C75 and C77 respectively, it is unlikely that any noise originating in these components would be present in the collector circuit of TR7. Hoping it was not the OC71 that was causing the problem, I changed out R38 first (15kohms) and the bad

Above: resistor temporarily tacked into place to see if a change-out is warranted (only because I would have preferred to leave the originals in for cosmetic purposes). Below: the three culprits that were removed from the first AF amplifier



crackling vanished but there was still some significant noise present, so I decided to also change out R37 (82kohms) and R40 (4.7kohms). This cured the problem, with only some remnant and quite acceptable minor hiss, typical of an OC71 audio amplifier. As always, exercise great care in removing components from these older Paxolin printed circuit boards – at least the tracks are a good width so they tend to remain in place. Quick component removal is assisted by using a small hooked tool as shown in the photo, left.

You may want to check out my *Tech Short* article on 'Early Semiconductor Lore' (downloadable from the 'Restorations Articles' section of the EUG site) for troubleshooting tips on these simple solid state Eddystones.

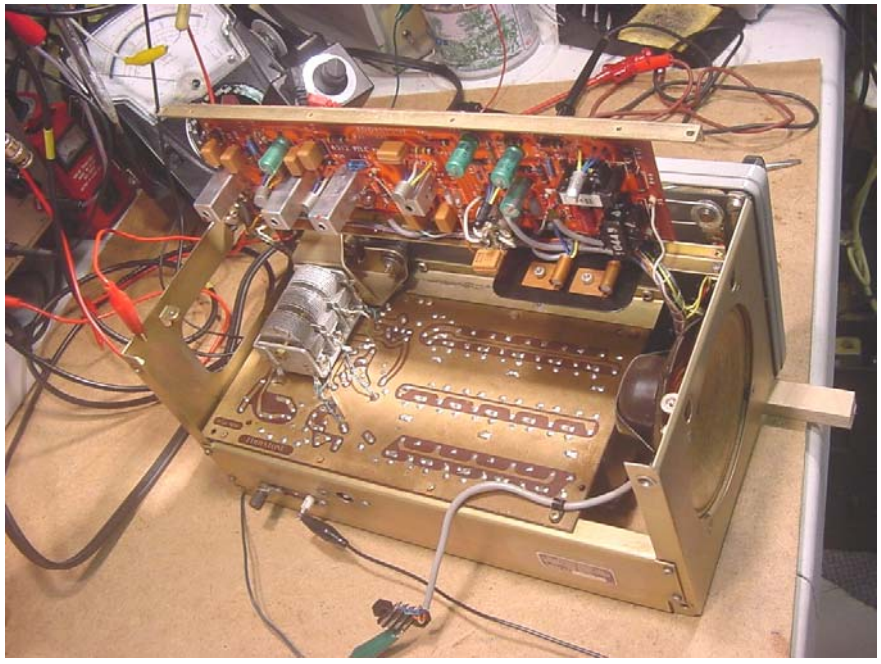
Power Supply

Not having a Type 924 mains power supply, I decided to improvise temporarily as detailed in Part 1 of this article by using a 'wall wart'. Although I found this works ok (although there is a trace of hum present), I don't like the way the voltage is unregulated, dropping from around 12 volts under no load to 9 volts when the set is switched on.

There was an excellent article by Stef Niewiadomski published in the July 2007 issue of *Radiouser* on making a stabilized power supply for the EC10 and I decided that I would make one along these lines (the article can be downloaded from the EUG web site). So far I have bought the LM337T negative line regulator chip (actually I had to buy a bag of 5 of them for $7!), and the rest of the bits I have in my junk box. I intend to mount them on a simple aluminum plate cut to fit the battery compartment aperture as detailed in Stef's article.

Conclusion

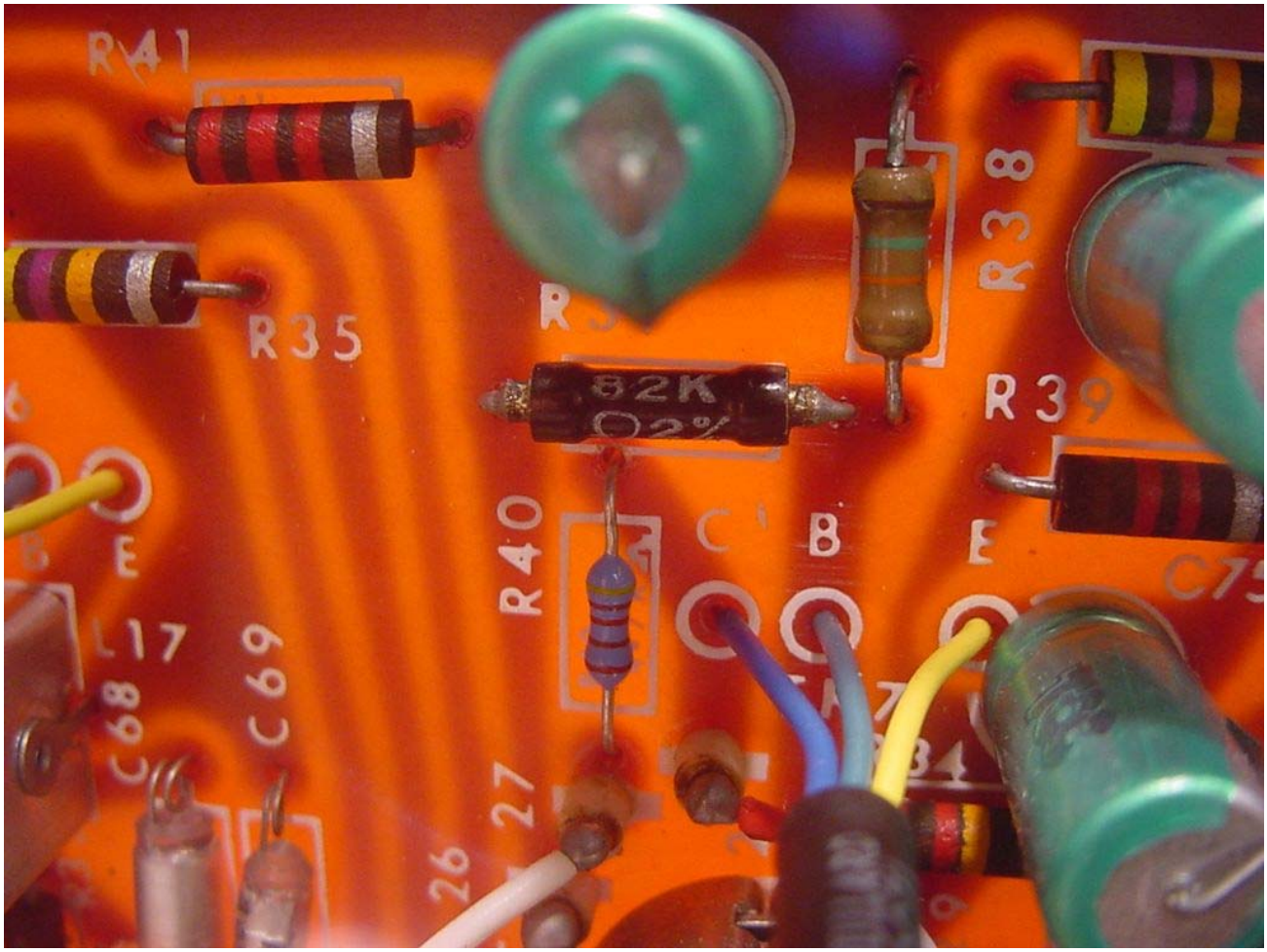
The Eddystone EC10 was one of the most popular models to leave the Bath Tub. In its day it had a unique niche in the market and the length of its production run is testimony to the soundness of its design, albeit with the limitations imposed by the early semiconductor technology. Its Achilles' heel in its old-age is the flawed design of the Mullard OC171 transistors used in its RF and IF stages – having said that, who would have thought back in the 1960's that these sets would still be in service forty plus years later? Still, this flaw can be overcome, either by fixing the failed components, eg. by either a sharp tap on the transistor case with screwdriver handle, by cutting the screen lead while still in-circuit, or by removing the device from the circuit, shorting the base, collector and emitter leads together and applying a high voltage between the joined leads and the screen lead to fuse the 'whiskers' inside the encapsulation or, of course, replacement with a known good device. Part 1 of this article discusses these issues in more detail.



Well ok, I know it does not contain valves and its performance is somewhat lacking (not in the same league as my trusty S.750 when I had them side-by-side on the desk for a while), but it is still an Eddystone radio: it is easy to service (photo, right), looks like a miniature

version of a 'real' communications receiver (personally I think the MkI does so more than the 'tarted-up' MkII version – and it matches my MkII valved Eddystone collection in appearance) and has all the hallmarks of quality normally associated with this marque – including the legendary Eddystone silky smooth tuning. But most of all for me, this particular model has a unique nostalgia value – when I use this set it instantly takes my back to my youth: I recall long weekend days and nights listening intently on all the broadcast and amateur bands, lugging it on the train to Sheffield University with me, it went up hills and down dales, on field days in Scotland, Wales and England, it even went mobile with a 2-meter converter bolted to its back and a homebrew transmitter sitting on the front passenger seat of my first car (a green Triumph Herald 1200). Happy days. That poor set still resides in my mother-in-laws garage in Burton-on-Trent. One day I vow I will return to Blighty and rescue it…

73's



Above: The repaired first audio amplifier section – unfortunately the resistors are a junkbox mix and I will likely replace them with matching ones for aesthetics. Still, they are new and work just fine for now

Above: the EC10 MkI finally boxed-up after the restoration work was completed – the new knobs and fingerplate were worth every penny – as good as new - and of course this is probably the only EC10 MkI in the world that tells folks that it is a MkI (and very proud to be so!)

Postscript – On the EC10A, EC10A2, and EC10A/2 (Technical Comment and Photos courtesy of Tor Marthinsen)

In the 'Context' section of Part 1 of this article I provided a summary of the EC10 'family', including the EC10A, EC10A2 and EC10A/2 (photo, left). Most of the information in my article came from Graeme Wormald's excellent QRG document, Eddystone data sheets, Lighthouse articles and manuals downloaded from the EUG site. Since posting that article, Tor Marthinsen corresponded with me some clarifications and thoughts concerning these variations of the EC10. I thought this information should be recorded somewhere on the EUG site and a postscript to this article seemed as good a place as any.

Tor mentions that some of the Lighthouse entries as well as the QRG were the subject of a series of misunderstandings and errors, noting that these started when Tor sent Ted Moore a copy of an article in Wireless World from June 1970, part of which was subsequently printed in Newsletter #16 page 9, reproduced below.

C 10 Mk 1 (Price on request)	Superhet	550kHz–30MHz (5 ranges)	A.M. C.W.	Low Z phone 75 Ω 400 Ω (I/P) Low Z phone (O/P)	5μV for 15dB above 1·5 MHz 15μV for 15dB below 1·5MHz	13 Semiconductors	A.F. R.F.	U.K.	Provision for crystal-controlled channels. Image rej. 60dB–70dB. Battery operated, mains P.U. optional. Built-in L.S. Image rej. 60dB at 2MHz, 20dB at 18MHz.
C 10 Mk 2 (Price on request)	Superhet	As Mk 1	As Mk 1	75 Ω 400 Ω (I/P) 5k Ω record Low Z phone (O/P)	As Mk 1	15 Semiconductors	A.F. R.F.	U.K.	EC 10 Mk 2 and EC 10 A Series differ from the Mk 1 by the addition of (a) fine tuning control, (b) carrier level meter, (c) standby switch. EC 10/A/2 RM has two additional speakers for ship intercom system. Additional information otherwise as for Mk 1.
C 10 A Series (Price on request)	Superhet	330–550kHz 1·5–30MHz (5 ranges)	A.M. C.W.	As Mk 1	As Mk 1	15 Semiconductors	A.F. R.F.	U.K.	

Tor believes that there are mistakes in this receiver survey, so he wrote Ted a letter, most of the content of which appeared in Newsletter #18 page 17, reproduced right.

– From the same source, Tor categorises the EC10 models as follows, saying some pictures in ads are mixed up.–

1. EC10 – 0.55 to 30 Mc/s, 5 bands.
2. EC10A – 0.3 to 0.55 and 1.5 to 30 Mc/s, 5 bands, tablemodel.
3. EC10A/2 – as EC10A but with switched 2182 position.
4. EC10A/2/RM – as EC10A/2 but rack mount.
5. EC10 II0.55 to 30 Mc/s with fine tuning.
6. EC10A2/1 – as EC10A2 with fine tune, table model.
7. EC10A2/2 – as EC10A2, rack model, one speaker.
8. EC10A2/3 – as EC10A2, rack model with two speakers.
9. EC10M – 0.15 to 22 Mc/s, five bands, MIMCO version.

However, Tor notes that in re-writing this for copy into the Newsletter, further errors were introduced, and comments that the QRG also includes errors, referencing his letter to the EUG in 'Lighthouse' #76 page 47 in this regard, reproduced below, left.

EC10A. Receiver missed out! I own two of these and they have only ten transistors and NO crystal controlled 2182 kc/s. The EC10A has a grey scale plate with white calibration. It has a 12/24V power supply which uses an external accumulator, this is really a power converter as the receiver proper works on 9 volts. Accordingly the receiver can use the battery box or the AC power supply for the EC10. The EC10A dates back to 1964. *(N.f.G; very sorry for the oversight! The EC10A is a marine special never seen in England! It covers the non-rotating beacon (N.R.B.) band of 300-550kc/s instead of the MW broadcast band and has an IF of 720kc/s)*

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EC10A/2. I own a receiver with this marking, it is mounted on a plate with two speakers making it in effect an EC10A/2/RM. This receiver conforms to the description you give of the EC10A2/1, but as said it is not so marked. This receiver also has a 12/24V power supply but it is not identical to the unit for the EC10A as the plug/connector is different so it cannot use the AC supply or the battery box for the EC10. The receiver I own has had the Eddystone badge at the rear removed by a previous owner so it is not possible to figure out the production date. Many years ago I sent Ted a copy of the handbook for this receiver, it is dated May 1966, issue 1.

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EC10A2-series are then possibly not out as early as 1966! The only date I know is from a leaflet dated January 1970. *(N.f.G; According to my handbooks there is no difference between the EC10A2 and the EC10A/2; they just changed the name to confuse the innocent!)* They will not take the battery pack or the AC supply unless you change the connector, so your comment at the bottom right of page 42 is slightly in error.

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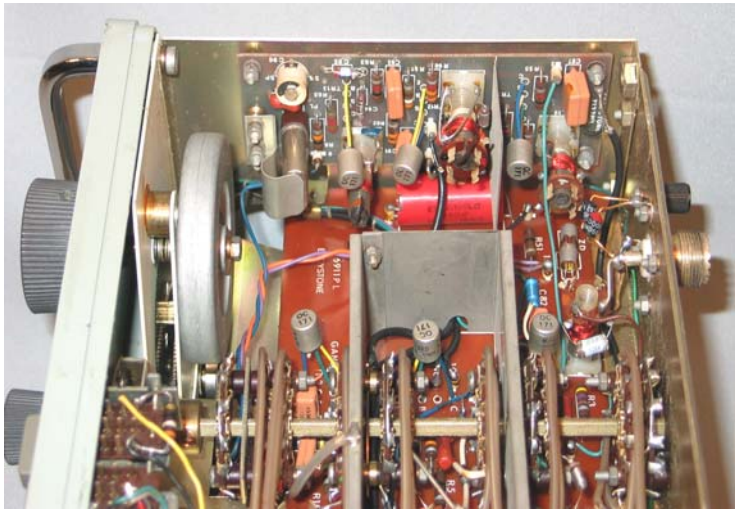
When Tor read page 5 of Part 1 of my EC10 article he gained the impression from my prose that the EC10A and the EC10A2 might have different frequency coverage, and notes that from his first-hand experience of these sets this is certainly not the case.

So here are the 'facts', according to Tor:

The EC10A was introduced before March 1964. The frequency coverage is 0.3 to 0.55 MHz and 1.5 to 30 MHz in 5 bands. The next version, named EC10A/2 has a handbook dated May 1966 and is issue #1. Page 16 of this handbook explains the differences between the EC10A and the A/2 versions. The frequency coverage is identical, however the A/2 has a crystal controlled 2182 kHz receive facility added (see internal layout in the photo below – additional circuit board located on the chassis side panel).



The handbook for the 'EC10A2', which is available for download from the EUG site, is issue #2, dated January 1967. This is a copy of the first issue apart from a new page between the front page and page 1, where it tells you about a change of name. However whenever the model name crops up in the handbook it is called an 'EC10A/2'.

The leaflet on EC10A2, which is reprinted in Part 1 of the article dates from 1970, however in both pictures of the receivers you can read the name 'EC10A/2' – photos above and on Page 14.

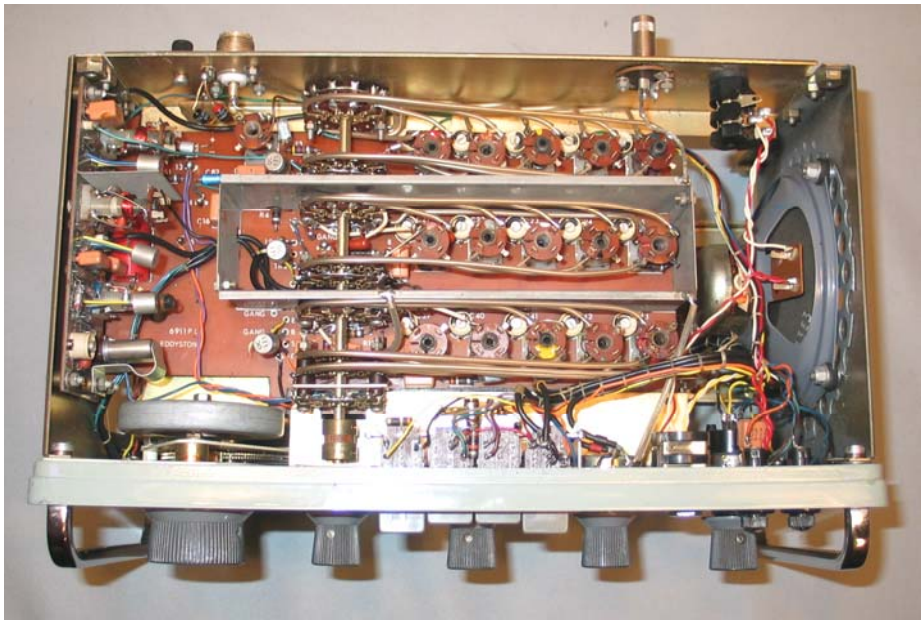
In summary, the receivers and the important details in the handbooks are named 'EC10A/2', but the leaflets and some front pages are marked 'EC10A2'. Tor comments that he shall keep referring to this receiver by the name on its scale plate, ie. 'EC10A/2', until a receiver with the name 'EC10A2' turns up.

Tor also points out that the power connector to the first EC10A and the later EC10A/2 are different, the one for the EC10A is equal to the ordinary EC10. So the EC10A/2 cannot use the battery or mains power unit (see photos on the next page).

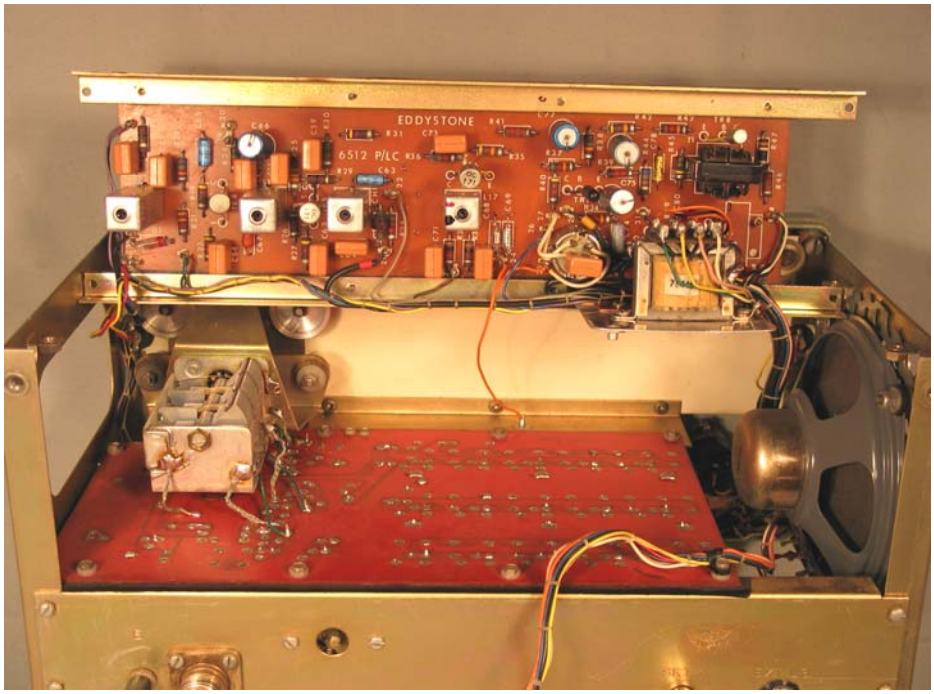
In his correspondence with me, Tor notes that he retains the role of 'collector' rather than 'manufacturer' or 'customer' for the sets and contends that the collector's first encounter with the EC10A series of receivers must be the type designation as given on them. A good example of this is to be seen in the photo, right. The EC10A is clearly

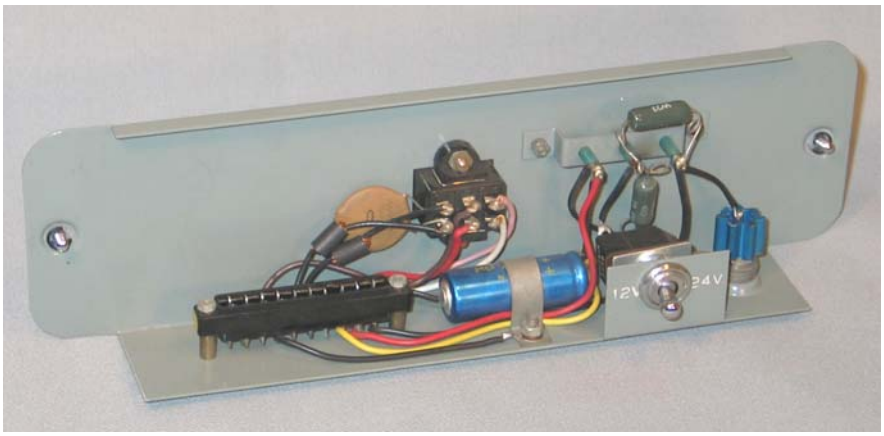
marked on the scale glass as being 'Model EC10A'. However, the name-plate at the rear says that this is type 'EC10', serial no. CP 0986. From this, Tor believes that the EC10As were numbered in the same series as the EC10s, so there is not a separate number series for the EC10As.

Tor also looked closely at the pictures in Part 1 of this article and noticed that the PCBs in the EC10 have the same identification numbers as in the EC10A, whereas the EC10A/2 have a different PCB identification number. In addition, Tor has now also found some paper evidence: if you look on the EUG web-site, under 'Data Sheets and Catalogues', and download 'Transistorized Communications Receiver EC10 MkII Feb. 1970' you get three pages. Of these, Page 3, 'EC10 MkII and EC10A series', appears to be a single page and not related to the first two - unfortunately the page is not dated. The type numbers given on this single page is what Tor believes to be the first issue - for some reason Eddystone chose to change this. In conclusion, Tor intends to stick to the information as marked on his receivers.



Above: Under-chassis view of the EC10A/2 (RF sections) – the 2182kHz board is on the left hand side. Below: IF and AF strip of the EC10A/2 – note the different audio output transformer used to add 600 ohm line output





Left, top: Power supply switching unit from an EC10A/2

Left, centre: rear view of an EC10A

Left, bottom: rear view of a rack-mounted EC10A/2

References

Most EC10 references that I could find were provided in Part 1 of this article – however, check out the article by Ian Batty under 'Technical Information' posted on the EUG web site since Part 1 was posted – its well worth a read

All good things must come to an end… even this project!