(24)

870

Eddystone User Group

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Newsletter

Issue No: 24.

Featured Model:

- The Model 870, Mini Domestic / SWL, A Basic Superhet for AC/DC Mains Using Five Valves. Covering Long, Medium & Short up to Eighteen Mc/s.

*A non profit newsletter for Eddystone Users
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- Issue 24.-

- No sooner finished one issue than it is time for another ! It sure keeps me busy, and happy. With membership as it is now there's no way I could cope though with out Kathy and her admin: help. I tend only to get the technical queries nowadays and leave the rest to be done by Kathy. This 'technical' query had me puzzled for a while as I had never come across the phenomenon. A member with a 640 who said that once the pointer reached '12' hours on his scale, no matter which band, he could no longer tune any more signals in. I did ask had he looked inside and was told that all seemed okay to him. Feeling that he must be missing something and that it could not be an electronic problem I got him to check again whilst tuning up to and then past the '12' hours position. Sure enough it was a mechanical problem after all. Loose and slipping grubscrews no less. The tuning condenser just stopped turning at that point. For this he wasted the cost of several long distance phone calls, (more pennies in BTs pocket.) and several hours of his spare time. Please remember to do a really thorough visual check first before delving into the guts of your Eddystone.

- A frequent problem here this next one, if you want a postal reply to your query - as opposed to waiting for it to be answered in a future newsletter - then please enclose an SAE. If you tot up the cost of paper, envelope, stamps and photocopying for your six issues you will see that there is none left from your subs for incidental postage.

- Prices again, I know that what you are willing to pay for any model is dependant on what you can afford and how much you want the set, BUT, some of the prices I am hearing from members dealing with certain dealers are just too much. A London based member was asked the astronomical sum of £300 for a 940 plus speaker. No way would I pay that, better to wait and scan the personal ads. Same goes for a price of £185 for a 640 plus 'S' meter, I know of one that went for £80 last monthbetween two EUG members, a much more realistic price. But then as I said, if you can afford it, and want it enough ----. Do try ads in the newsletter as from what members write to me they do work well, you have more chance of a 'worker' too.

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- Some Problems, and Cures, with a 940. -

- This 940 had been fitted with a replacement AF gain pot only sixmonths earlier, the replacement was now just as noisy. I knew this from having had it some years back on another model. C101 is a 0.01 mF going to the top of the pot from the AM/CW-SSB switch, I replaced this and also the failing AF gain pot. It was leaky as I later found out but since there is no real DC voltage on it I can not see why it caused the failure. Next problem was poor AVC operation, another previously cleared fault this one - C81 is a 0.1 mF from the AVC line to chassis, a leaky one here will reduce the level of AVC applied. AF distortion was a different matter, it was new to me, I did try all the old - well remembered possibilities but eventually came up with a cause that I had not suspected. The push-pull output stage has a measure of feedback from anode to the input via dual 1.8 Mohm resistors. Whilst one read about 1.72 Mohms the other was way out at 3.5 Mohms. Replacing both with 1% modern resistors was the cure. Last was not so much a fault as an improvement, alright a mod if you must have it. There is a spare LT winding on the mains transfo, I have long thought about moving the dial lamps to run from this, no reason why not - so I did just that and they do seem a little brighter.

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- Electrolytic Re-forming. -

- If you get your hot sticky hands on a long unused Eddystone, I advise you to be careful about just slamming it across the 240 volt supply. My own practice is to form the electrolytics slowly on a lower voltage for say, half an hour. This tends to lessen the shock when they are suddenly fed with HT. One member suggests that his method of putting about 100 volts from an old 'eliminator' directly across the condensers is a good method. Seems so as this eliminator is a fairly low current device and a failure would not be anyway near as catastrophic. Reminds me, few people think of the other electrolytics in their Eddystone. The bias condensers on the output valve(s). They do tend to dry out and lose capacity with age, in some cases I have found them to be VERY leaky, acting as an additional resistance paralleled with the bias resistor per se. This of course means a reduction in valve bias. The makers never did envisage them having to last for 3 to 4 decades or more.

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- Featured Model, The 870. -

- An ideal 'super broadcast receiver' was how this was described in a magazine of 1958. It is just that - a rather well made, high performance, compact broadcast set which covers Long, Medium & Short waves up to 18 Mc/s in four bands. The circuit is that of a standard 5 valve superhet of the fifties, an AC/DC circuit using B7G types in a mixer - IF amp; - det/AF - output & rect lineup. The 12BE6 valve is a heptode combining local osc and mixer circuits in the one bottle. the 12BA6 is a high gain IF amp; transfo coupled at both input and output. This is followed by the 12AT6 DDT which combines detector/AVC/AF amp; in one bottle. Output is the 19AQ5 to a built in speaker, no provision is made for phones but I have frequently seen such mods done by the keen owner. The power supply is a dropper resistor into the ½ wave rectifier 35W4. Being a BC model no provision is made for CW, the lack of BFO does deter some people but I have always found that this set performs extremely well where local QRM is evident on other sets. The combination of metal screening case, mains input filter chokes and condenser, and a screened lead-in from an outside aerial are a potent anti-QRM combination. The four bands cover 150 -350 Kc/s 540 to 1500 Kc/s, 1.95 to 6.3 Mc/s & 5.9 to 18 Mc/s with adequate over lap. Bandspread of the usual Eddystone mechanical type is sufficient for the HF ranges. This set was apparently meant for cabin use on board ship where the supply was notorious for generator hash. In the event I found that computer hash audible on my Trio R600 had no effect on the operation of the 870, both sets on the 6 Mc/s broadcast band and a station tuned in at similar audio strength. Not bad for a 50s set which cost me £6.50. New price was about £30 in 1958, can remember that mine came after a wait of several weeks, from HP radio in Liverpool. It was bought on monthly installments over a twelve month period.

- Known problems with 870s over the years ? - well the dropper does tend to go if the set is operated in a dampish location. 35W4 valves of Far East origin tend to be short lived, I can recall some which seemed to last but 6 months. C38 has been mentioned a few times in readers letters, a paper type which goes leaky. At the other end R5 has been known to go open circuit, or just very high. And C4 - well if it is still good I would even so swop it for a mica/polyester type as I HATE paper types here, between earth terminal and the potentially live chassis. Block schematic is included in this issue.

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- The All World Eight.-

- Tor Marthinsen has been doing some detective work and has been able to deduce the following points of difference between the early version of the AW 8 and the 1938 version. He found it easier to have the copy of original blueprints turned from a negative to a positive drawing first, the wiring was much easier to follow then.

- The changes which he has noted, and his 'Holmesian' deductions are as follows,-

1,- The grid bias battery has gone, back-bias being now employed via R29 & R30. This gives a much better stabilisation of the current drawn by the output valves. Bias for the mixer & the detector valves comes from a potential divider (R25/26) across R29/R30, R26 being adjusted to give optimun operating conditions.

2,- AVC to the RF stage is now parallel fed, the fixed bias for the mixer valve is also parallel fed.

3,- Screen voltage to the mixer is now via a .1 Mohm resistor, giving a lower voltage than before.

4,- The tone control switch now operates a pilot lamp. (one of the deficiencies in the original model, Ted.)

5,- A new continuous tone control operates on the first AF stage.

6,- The anode of the RF stage is decoupled, (R4 & C5).

- There may be other changes to the component values, the value of the grid resistors seems rather high.

- The changes in the biasing system and the mixer screen voltage make it possible to operate the receiver from varying HT supplies, it is now permissible to raise the HT supply volts to 150. The power output would then be 1.7 times that at 120 volts. The receiver would probably operate at lower voltages than 90 volts as well. Endit.

- Not many AW8 owners out there Tor but I am sure they will appreciate your work on this model, in the event that one does turn up for sale your name is on file.

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Eddystone

PO JOURNAL
JULY 1967

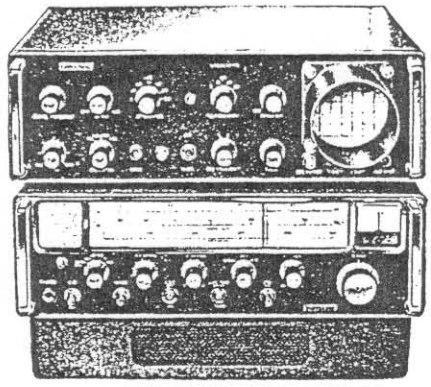
Eddystone Radio specialize in the manufacture of communications receivers and have, over the years, gained a high world-wide reputation for the excellence of their products. The diverse range of models offered falls into various categories and naturally there are variations in the capabilities of one receiver compared to another, according to frequency range, price class and the applications envisaged, with the advantage that most requirements can be met.

The total frequency coverage encompassed is extremely wide—no less than 10 kHz at one end (in the 850/4) and 870 MHz at the other (in the 990S). Some receivers use valves, others transistors, and a high engineering standard is maintained throughout. Other common features are good performance, robust construction and reliability.

A typical example is the Eddystone 990S receiver, which is a recently introduced model for VHF/UHF operation. It can be used separately or as a complete panoramic receiver, in which form it is illustrated here.

Eddystone EPR29 panoramic receiver

A combination of the 990S receiver and the EP17R display unit, with the necessary accessories. The receiver is transistorized and gives high performance from 230 MHz to 870 MHz, divided into two ranges, with clear direct-reading scales. FM, video and AM modes of operation are catered for. The display unit operates on the IF output of the receiver and has a maximum scan of one MHz, with excellent resolution and other characteristics. The whole forms a versatile, compact equipment having many applications.



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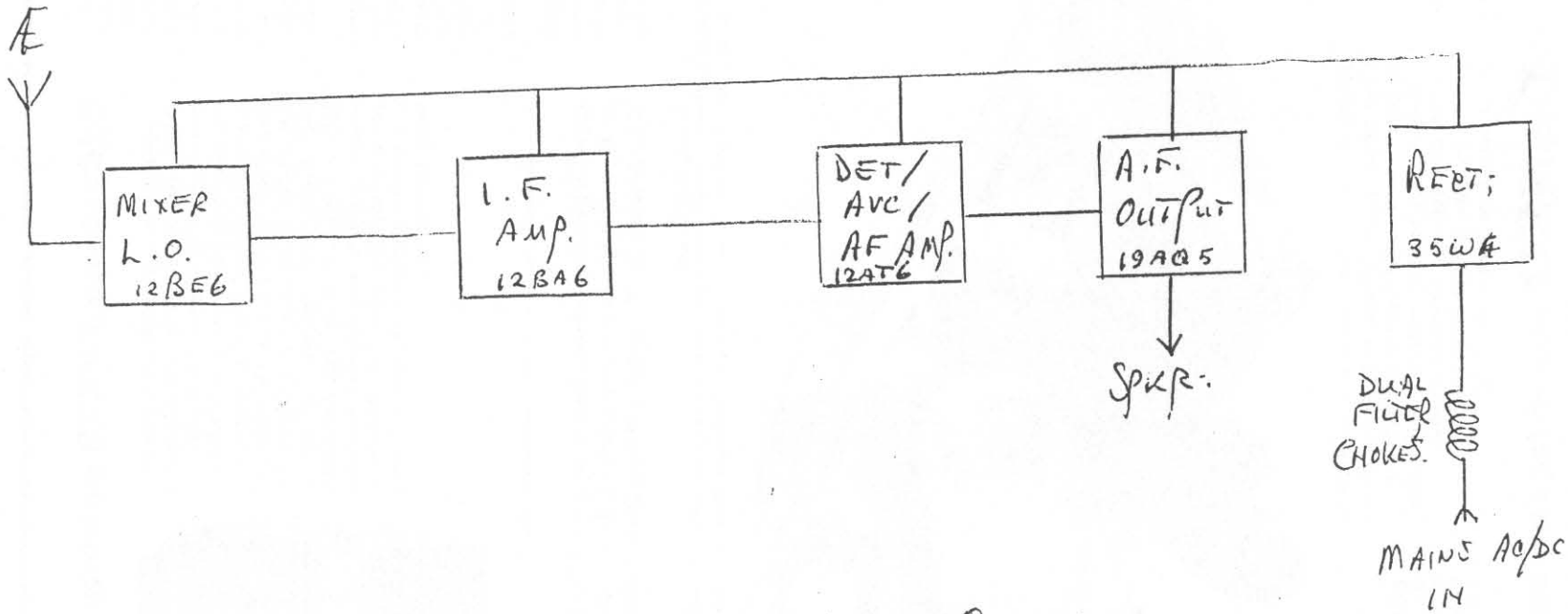

870 MODEL, HIGH QUALITY
BC. MODEL. CIRCA 1958.

- TRIALS & TRIBULATIONS with an 870. -

- The 870 had been bought at a local rally for a tenner, sold 8as seen' but supposedly working. Well admittedly it did work when first powered up but then the sound began to diminish within minutes. No smell to indicate the cause - as is so often the case - also the dial lamps had not dimmed, sometimes a pointer in these AC/DC sets. First job was to get it out of its cabinet and onto the workbench.

- Powered up again on the workbench it came on as before, with the audio dropping down to zero within some five minutes, again no visible nor nasal signs of distress from the beast. I powered it down and began some basic checks on insulation, continuity or lack of, and signs of tampering. Nothing wrong there although I did swop the old rubber covered mains cable of the Red/Blue/Black variety for a more modern plastic version, correctly coded. Powering up again I began some voltage checks as per the table in the manual. This is usually a good guide to where the problem is, and always done with an Eddystone when on the bench. Strangely enough there seemed to be no changes in voltage from a 'playing' condition to a 'silent' condition, just a few tenths of a volt on the kathode of the output valve. So this was not going to be one of those, a simple dud paper condenser. These were all checked out for the form and C38 showed up as leaky on a full voltage test, although in situ it did not seem to affect the grid volts of the 19AQ5 output valve. When the set had once more gone silent I began some signal injection checks using a self-powered mini injection oscillator built into a felt-tip marker pen case, this puts an approx; 1 Kc/s signal into the circuit, but as it produces harmonics up through the bands to about 5 Mc/s it can be used on all stages back from the speaker to the Aerial socket. First check was the anode of V4, okay a weak but discernable signal, much more output from the control grid, pin 1. Going to the anode of V3 the output was practically the same as on the grid of V4, again normal. At the grid of V3 still okay but louder of course so I turned the gain down. When I went to the volume control itself it was a different story, reduced gain on the centre tap and nil output on the top or 'high' contact. This takes its feed from a tone corrector/filter circuit which is fed from the diode second detector circuit. It was found that the C34 condenser - a 100 pf ceramic was shorted out internally, actually reading about 15 ohms. The

second condenser in the circuit - another 100 pF was checked and found okay, but was replaced. The 870 was again powered up and left to play at reduced volume throughout the evening, after a period of some four hours a noticeable degree of distortion was evident. Replacing C43 the bias electrolytic on V4 cured this, I had thought of swopping this in the first place as they quite often do go dry with age. Some months later the 870 is in daily use and working well, there is a plan to replace the valves at some future stage, depends on when I can see and buy them at a rally, the 19AQ5 is not often seen.

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- SFERICS. -

- With respect to the above item on the 870 - the 35W4 fitted was printed with 'Made in Mexico' ???? Anybody know anything about this ? I had no idea that valves had ever been manufactured in Mexico.

- A catalogue number 687/1 vibrator unit for six volt operation of the 888 receiver was recently bought for 50 pence at a car boot sale. This was later offered to me for the same 50 pence. Seems to be non-working but that is most likely seized up contacts on the vibrator unit, however it looks as though a replacement electrolytic will also be needed. Meanwhile it is spending a few months in the airing cupboard 'drying out' so to speak.

- Not many of you will know the 770S, a twin-looking model to the 880 and bearing no resemblance to the other 770 models. Mine is not often used although it can be powered up anytime, being one of those set up in my radio room. This time when powered up there was a noticeable lack of output, I hate getting this monster onto the bench it weighs a ton, well almost. Problem turned out to be a creepy-crawly which had infiltrated the main RF tuned circuit & been executed for so doing. How ? well the 770S covers from 500 to 1000 Mc/s and uses a beautifully machined cavity/piston tuned circuit. Removal of the miscreants remains put the 770S back on the air.

- Talking of the 770 series, they do NOT use the same valves in the RF turret circuits of the 'U' model as in the 'R' model. So many have been caught out and tried to get a 770U going with the wrong types, those used are a 6AM4 and a 6AF4A for V1 & 2 respectively.

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- Some items from a letter to EUG, sent by Geoff Woodburn, who had a lifetime of experience with Strattons, having reached the top position of Chief Engineer.

- The EY11 was actually a Yachtsman version of the EC10, mods he did included fitting of an 'S' meter and special input circuitry for use with a DF loop.

- The model with the pressure horn loud speaker was a 710B, aka the All World Six. This was an order from the Crown Agents and the ensemble 710B & Horn speaker was intended for communal broadcasting in African villages in what were then British colonies. In spite of a mere 2½ watts of drive these were extremely efficient. Geoff did the field (literally) testing of these sets and was getting complaints of deafening noise from people working a 100 feet away. Contrast this with the claimed 'so-called' audio powers of ghetto blasters today, commonly they claim output powers of 40 watts per channel, this off a power supply which can manifestly not produce even one tenth of that power.

- Geoff was the source for the booklets 'Span the World' of 1928, and the 'Eddystone Short Wave Manual, No 1, of 1932/3.

- Geoff, having delved into the remaining archives was also able to produce a large number of original blueprints and manuals gaing back to the 1920s. This included the info on the S215/214, transmitter/receiver equipment which was rushed into production in 1939 for the Metropolitan Police Force. He was infact involved in the wiring and assembly of this equipment on Sunday, September 3rd 1939, the day that war was declared, due to the urgency the staff at Strattons were working all hours to get this equipment out of the factory.

- In re the 770M, he says, "these were produced only as early prototypes since there was some trouble with resonance in the area of the tuning gang at the VHF end of the range, circa 250 Mc/s. In the event the range was reduced to a maximum of 165 Mc/s and the model renamed the 770R. "

- The 770S, the heavyweight 'twin' to the 880, which covers from 500 to 1000 Mc/s in one range was one of Geoffs designs, he comments that "I had an interesting time developing the cavity oscillator and the butterfly tuner, sorry about the weight."

- The S700 or 'Queens Model' as it went on board the two Cunard Queens liners, was in fact designed for the International Marine Radio Co. In fact under this badge 220 were made and called the IMR54.

Sferics cont;

It was Post Office type approved for use as a main ships receiver and weighed in at 1¼ hundredweight, and Geoff remembers this model as he personally tested and aligned the whole order of 220 in 1952/3. Only one was produced under the Eddystone badge. In appearance it resembled the then current line of receivers in the style of a 680X except that it was some 50% larger in all dimensions, with a front panel width of 30 inches. The cast coil box under chassis was in itself 18 x 13 inches. It covered from 10 Kc/s to 30 Mc/s and had dual IF, BFO, & AVC units operating at 465 and 110 Kc/s, all were switched by cams and levers from the coil box to allow continuous coverage. Geoff did unearth an original blue print of this leviathan for EUG and I fear it is such that I cannot see it being reproduced in the newsletter, the schematic is as gigantic as the receiver.

- The 890 single band VHF receiver was produced for the BBC & intended for the reception of radio microphones, a rare one this.

- Another of Geoffs designs was the EP 1061B panadaptor with its 21.4 Mc/s input. This was for use with the 1990R and 1990S VHF receivers which covered the range of 470 to 1050 Mc/s in two bands. Some 50 of these were made and the majority of them went to North Korea. A version of the 1990R was developed with a special unit fitted for the Admiralty Surface Weapons Establishment. Geoff went on sea trials with this model on HMS Euralyus.

- A tribute to Eddystone reliability and solid construction practice was when Geoff took this model, (1990), on trials to the ASWE. It was subjected to repeated 15 'G' shocks while tuned to 400 Mc/s and was was still dead on tune and functioning perfectly even though the severity of the shock test had caused the centre trim discs from the control knobs to fly out all over the test area.

- The 400B was a special version of the 358/400 series for MOD use which had no demodulator and so responded only to CW signals. Again Geoff was involved in the design of this model.

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- A note from Ross Paton relating that he has recently acquired an exRNZ Navy a model 770 U II which has the NATO designation on the front panel, - 5820-99-972-3775, has been twiddled if the loose cover on the HF stages was anything to go by.

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- Signal Inputs or Outputs.-

- Many members with the 'hollow state' models write in to ask about the use of a Digital Frequency Meter with their receiver, to augment the accuracy of tuning. Others query the possibility of an output take-off point, be it IF or AF, for use with decoders. Now some of the models, viz; the 770 series, do have If input and output facilities, however others such as the 680 or 888 series could well benefit from either one or other of the listed facilities.

Colin has written in to remind members that in most cases the provision of these facilities need not be a major modification job. Most people think of a take-off point as being in the anode circuit of a valve but this need not be so. The simplest way is to use a kathode take-off point, in most cases additional components needed are limited to one resistor and one condenser, plus a suitable output socket.

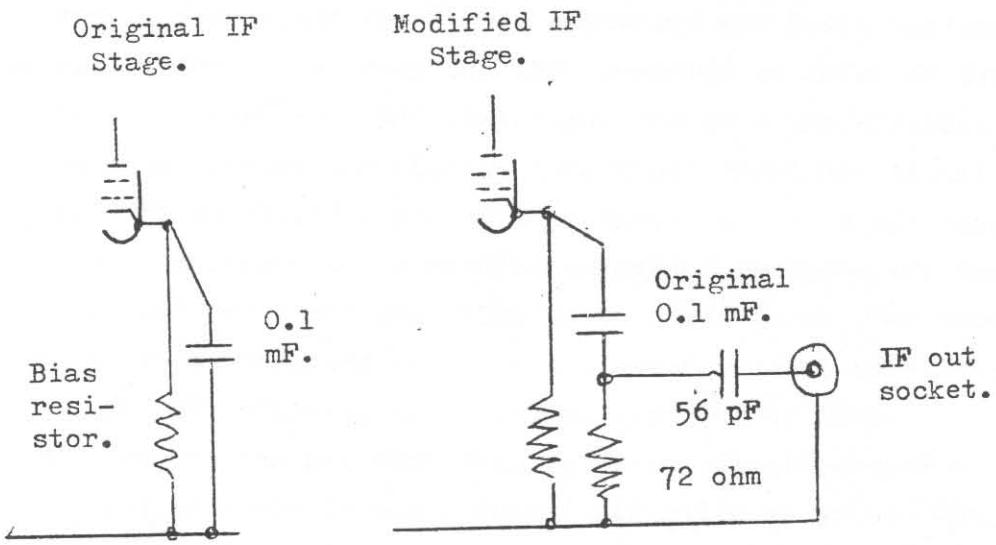
Lets consider first the provision of a Local oscillator output at low level to drive an outboard DFM. the kathode circuitry consists of a bias resistor and a bypass condenser. Lift the earthed chassis connected leg of the local oscillator kathode condenser, reconnect it to chassis via a 72 ohm resistor, from the junction of the new resistor and the original condenser connect a low value mica or polycon condenser, in my set a 47 pF sufficed. the other leg of this new condenser is then taken via low loss miniature coax to the new LO output socket on the rear panel. It is possible that the LO will need to be re-aligned but in my case this did not happen, the secret appears to be in using the lowest value of new coupling condenser that will drive your DFM module. All that remains is to set the IF offset to suit the IF of your receiver. In my case the necessary 9 volt DC to drive the DFM was taken from a fullwave rectifier driven from the heater supply of the 680X.

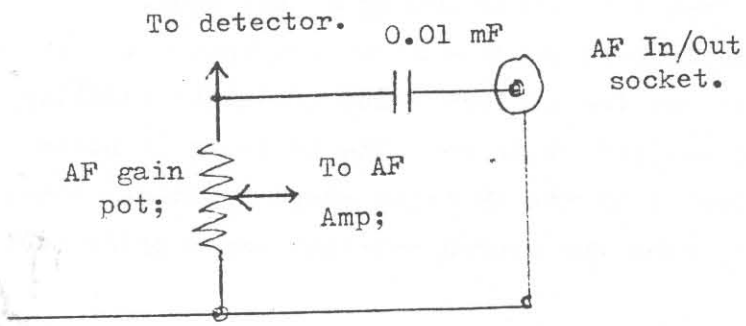
If an IF is required to provide an output then a similar method may be used, again use the minimum value of output coupling capacity that will provide sufficient drive. The AF drive if needed can come from a similar circuit in the AF drive stage or it may simply be picked of directly from the second detector stage prior to the AF gain control.

Do not overlook the fact that an output of this kind can also act as an input for the correct frequency, be it RF, IF, or AF. By disabling the sets own local oscillator and inputting a more stable signal from say, a crystal oscillator the set could be used as a highly stable single channel receiver. Alternatively by inputting

an IF signal from another receiver the set can be used as a highly selective add-on 'Q-fiver'. Any old timers recall the BC453 used as an add-on in this context ? I have still a number of these and the BC454/455 sets in store for future use. An AF take-off from the top of the AF gain pot will give a low level out signal to drive a RTTY decoder which is unaffected by the position of the gain pot; conversely it can provide an input point to the AF amplifier stages of your receiver for a security channel, driven by a microphone in the babies room, a micro in the garage, or near to the doorchimes.

One point to be borne in mind if you are contemplating the addition of one of these facilities to an AC/DC model such as the 840C. You will need TWO output decoupling condensers both rated at 750 volt one in each leg of the output, since the possibility that the main chassis could be live must be guarded against. See sketches below.





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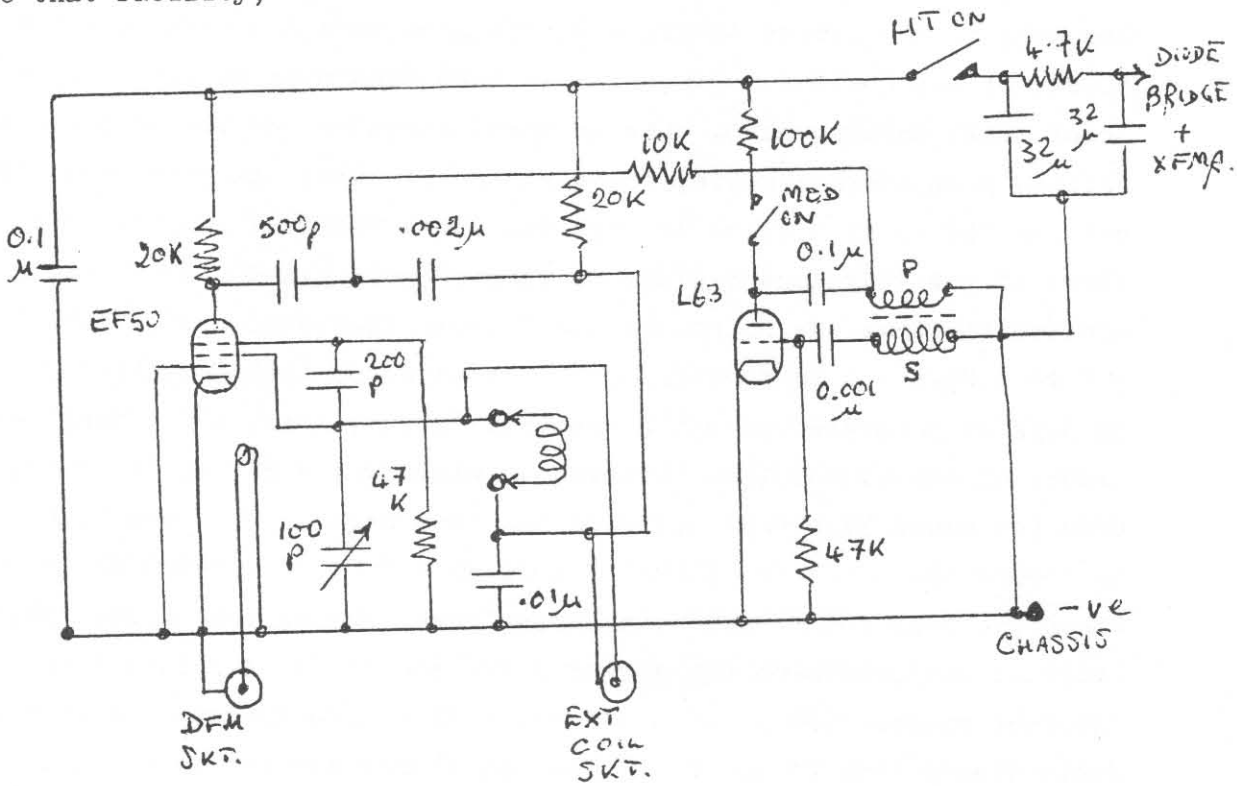
- Heterodyne Frequency Meter.-

- This circuit was found in an Eddystone Short Wave Manual of 1947, it was No; 6 of the post war series. The available valves in my jurk box meant that I had a good start, plenty of the EF50 and L63/6J5 types and even the necessary valve bases. A *598 Fullvision Dial was there still in its packing, gift from an old timer several years back. As I have been collecting Eddystone bits and pieces for some 15 years I had many of the listed parts, a suitable chassis and case were not there, it was decided worth while to have them made up for me by a local metal working shop, both in sheet aluminum and the case was even painted with black crackle, the cost for all this was just under £20, not too bad as it equates to some ten times the 1947 prices. Only three of the Eddystone 6 pin coil formers were found and so it was decided to limit the ranges to the 3 lower frequency ones, 1 to 2 Mc/s - 2 to 4 Mc/s - 4 to 8 Mc/s. It has been found that operation up to 40 Mc/s is possible using the harmonic output, there was a considerable amount of experimentation involved in winding the coils, the original used pre-wound Eddystone coils in the *959 series. It was found that by moving the position of the AF modulator further forward on the chassis there was room for a mini mains transformer and silicon diode PSU, the original had provision via a rear octal socket for supplies from an external source, low power needs meant that some Eddystone receivers could supply this HT and LT. The oscillator circuit is of what is termed the 'transitron' type, where just one winding is needed to give the required oscillation. It does have a secondary advantage that any normal variations in supply voltage have minimal effect on the actual frequency. In practice it was found that a change of 25 volts in the HT caused less than 1 Kc/s change at 1 Mc/s, not bad that. A coax socket on the rear means that external coils can be checked for coverage when no plug in coil is used. Front panel controls are minimal, the main tuning knob, on the dial mechanism, a double pole switch for mains on/off, and a second matching switch for the modulation on/off. It has been decided that the mains on/off will later be made into an HT on/off only, leaving LT on the heaters so long as the HFM is plugged into the supply, for convenience. The one addition to modern day technology has been the provision of a coax socket on the rear for me to connect a DFM should this kind of accuracy be needed, a single turn pick-up loop positioned close to the valve base wiring has been found to give adequate signal for the DFM. I decided that the unit worked so well that it deserved the addition of an Eddystone logo badge, again

cont;

from my stock, it is approximately of that period being the kind used on the 740 model receiver. The HFM is quite 'period' looking and a good match for my 640 and 680 receivers. I found a good use for it the other day, the BFO on my 680 is set normally to the USB position, listening to a station on top band using LSB I used the HFM to give me that facility, no need to reset the 680 BFO.



- All resistors are ½ watt except the 4.7 K which is 1 watt.
- All condensers are ceramic except the 0.1 mFd which are polystyrene, the 32 mFd are electrolytic of 250 v.w.
- T is a valve type inter stage transformer, ex battery receiver.

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- Magnetic Baluns.-

- Having spent some £25 on one of these, advertised as a noise reducing matching device for long-wire aerials the member writes in to say that in fact its noise reducing properties are hardly better than the twin feedline which he already used. One leg of the feed line left unterminated at the aerial end and to earth on his receiver, meaning that it acted as a noise cancelling device for anything picked up on the feed line itself. In fact what the magnetic balun is, is a wide-band impedance matching transfo which enables the hi-Z long-wire to be fed by low Z co-ax cable, thus a screened downlead which cuts local QRM. Nothing new under the sun as both Aerialite and Belling-Lee had these systems out in the 1950s. I had a 15 foot vertical whip on the chimney then, at its base was a matching balun transformer, fed down to my various receivers, 840A, 870, HRO, and SX28, via a length of co-ax. It had a problem though, all TV aerials were vertical 'H' types, TV linetime-base QRM fed to the aerial was reradiated from these 'H' aerials and my whip was nicely placed for picking it up. There is nothing miraculous about these magnetic baluns, you can make one for pennies from the data supplied in many of the ARRL handbooks. Far better than going out and half bankrupting oneself, and use of the twin feed plus your ATU will give you higher 'S' points too.

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- Project Colombus.-

- More millions are being spent on a search for extra-terrestrial life, would anybody want to contact us if they had seen the quality of entertainment we get on the goggle-box ? Nasa is now involved in a ten year program which aims to target some 800 sun-type stars with a high sensitivity radio receiving system, at the same time a less detailed wider scope search will be conducted with less sensitive equipment. Such radio searches began in in the 1960s when Frank Drake used high gain antenna systems at Greenbank in West Virginia, there have been several since then but there has never been any kind of proof for the existence of those 'little green men' out there, if you discount the multiple reports of Flying Saucers that is. Sorry but it is doubtful that any Eddystone gear will be used this time round.

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- Smoke gets in your Eyes.-

- My 680X is the main station receiver, although I do leave my 940 on 5680 listening for any SAR calls. When going down for the odd meal I tend to leave the receivers on with the gain turned down, this so that I shall not need to wait each time for them to 'warm-up' again. The system has worked for years now with no problems. Recently after a ¾ hour absence for some much needed sustenance, we both smelled smoke from the living-room, check in the kitchen - all okay, run upstairs to be met by billowing smoke from the shack, a box-room. In I go, all power switched off quickly and the window wide-open, the smoke still poured out of the 680X and so a portable fan was put behind it so as to blow all smoke out through the window. Some ten minutes later with the air much clearer and barely any smoke, just a burning stench, I opened up the 680X. Sure enough it was the mains transfo. Later it was found that both C114 and C115 had gone shortcircuit, the 5Z4 must have passed all the current that the transfo could pump out, result was that the mains transfo was a write off, still too hot to touch a half hour later. It was eventually removed and the end panels opened up to show a charred mass. The choke is also suspect as it had overheated to some extent. Needs now are a 16 muff and a 40 muff condenser, a 5Z4, a choke and a transfo, my best bet is to buy a second 680X in poor condition and use it for spares, much as I dislike cannibalising any model of Eddystone. Oh yes, I have already fitted a smoke alarm in the shack. I plan on lifting the centre tap of the transfo secondary and fitting a 3.5 volt, 0.2 amp bulb as a fuse when the parts are actually replaced.

Dave Tyler.

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- 770R Tuner Valves.-

- Owner of two 770R receivers, Stan says that he finds it worthwhile replacing the three EF95 valves, V1,2,3, in the tuner unit at yearly intervals, for some reason gain does drop off as the valves are used and these are the critical one as far as overall sensitivity is concerned in the 770R, if you think yours is deaf then just see what a set of 3 X EF95s will do for it.

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- SFERICS.-

- Mimco versions of Eddystone Models turn up now and then in amongst the sets collected by EUG members, sometimes there is no difficulty in providing the information as an exact match can be made and the Eddystone manual can be copied and sent off. In a few cases this cannot be done unfortunately. Attempts to get the relative gen from The Big M people in Chelmsford have met with little success so far. If any member can provide a list of Mimco type numbers and the exact matching Eddystone model numbers then I shall print it in a future newsletter. Reason this came up now is that a certain number of the Mimco Type 3823A receivers appear to have come onto the market over the last six months or so. These are very similar to the 670C but are AC only and have a P.A facility.

- Another Mimco variant mentioned recently is the Type 881, a so-called 'cabin tuner' unit, one of these turned up recently in a second hand furniture shop in Edinburgh, it was had for £8 and was fortunately a worker, some cosmetic work needed only.

- Both a 960 and an 830/7, not bad that. So writes Harry Kemp of his latest acquisitions, he says that the 830 is run barefoot with no ATU and he is satisfied that way. I wonder though has he tried an ATU ? Most people are so amazed at the improvement when they do use one, as if to say 'how can I get so much from a passive unit ?' - I always suggest trying one since it is just not possible to get a match from any aerial right across the SW spectrum.

- Prices for EC958 models ? wow. Well to be honest the cheapest I know of was £25 for one off a sunken vessel, no idea whether the recipient ever got it working. More realistically they seem to command prices around the £400 mark from what recent mail tells me. Mind you it is a GOOD buy at that and will knock spots of many of todays Black Boxes.

- Another member doing a straight swop - Chas got a 940 in exchange for his 830/2 and is well pleased with the deal as the 940 looks better and in his estimation works better than his rather tired ex RN 830/2. He questions the fitting of a calibrator unit, since he has one available ex an 888 model. No reason at all Chas why you cannot fit this unit, minimal power needs can be taken from the 940.

- SFERICS.-

- Jack Tait on the I.O.W whilst a non-member has written offering a 640 for £25 to anybody who cares to collect it, at this price it will be snapped up I guess.

- Stateside and Canadian members must sometimes have problems getting hold of Eddystones, although a fair number did go to both countries. Ray Burke has so far got his hands on a 990R and would like tips from anybody out there who can help him to upgrade and improve the operation of this model, I take it he refers to an increase in sensitivity. He is hopeful of, by now, having a 770U Mark II also. Again he would be interested in any 'non-destructive' means of improving performance of this set, he has the full manual already. Any offers of 'improvements'will be forwarded and maybe even printed in the newsletter.

- In Sweden one reader has got hold of a model 2004, which has rather limited frequency coverage unfortunately. This is because the 2004 was purely and simply an emergency receiver meant for reception of CW, the coverage was 400 to 535 Kc/s and was on a 3 digit LED readout.

- A customised 680 ? looks like it as Graham Leese has one with no serial number, various differences in the control knobs, i.e the BFO and crystal phase are larger than normal, whilst the RF and AF are smaller than normal. The mains on/off switch is of the rotary type and is operated by a chrome lever to match up with the selectivity switch. The presets on the rear panel have red and white knobs similar in size to the gain control knobs and the whole thing is mounted in a wood cabinet. Sounds interesting, can any member throw any light on this set ?

- A query from Alan Peary, how did the 940/2 differ from the run of the mill 940 such as he operates ? Does any member have one ? If so I will forward your letter to Alan.

- A recent advert in one of the radio magazines has an Edometer for sale. Not often seen this Grid Dip Oscillator for MF to VHF use. It comes in a nice polished wood box with all the plug in coils. Mine cost me 30 shillings, but it was in the late sixties.

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- ENDIT -

- Forgive the 'telegraphese' - even forty years on I still find myself using abbreviations used on RTTY circuits of Creed 7B years whilst in the RAF. Okay before anybody asks I refer to circa 1951 when the RAF maintained a world wide RTTY network centralised on MCC Stanbridge, Bucks; with distant terminals in places like Ottawa - Cyprus - Ismaelia - Habbaniya - Malta - Fontainbleau - Hong Kong and many other exotic places. I was lucky enough to be at the hub of all these as a Ground Wireless Mechanic, in the control section where QSYs were handled and the teleprinter equipment came together with the Transmitter input lines, SWB 8s and SWB11s were used on FSK,DSB,SSB or ISB. Receivers were also remotely located and in the main were still AR88s in triple diversity mode. All this to excuse the odd 'ENDIT' or 'ASTIC' or even 'LO OM PSE AS'. Anyway that is it for this issue and please note, subs are due for next year as of this issue. The end of four years of the newsletter with this issue too, and we still have many of the original members with us, the really 'hooked on Eddystone' types I guess. Peter has only an 870A but has been with us since issue 1, says he enjoys reading about what is to him 'exotica' but that he is happy with the 4 + 1 model 870A. Contrast this to those who have become hooked since EUG began and now have collections numbered in the tens. Nice to know from your letters that the newsletter contents is what you want. If by any chance it is not to YOUR liking, then how about doing something about it ? Send in your contribution about the sort of subject YOU want.

73,

Kathy & Ted

- MEMBERS FREE ADVERTS -

- SELL, Set of TEN coils for the model S.358, covering from 90 Kc/s to 31 Mc/s. These coils are good working units. Please contact Jim (G3ZJS) on telephone 0533 713944.
- WANTED, Eddystone S.689 Bug Key, must be 'mint-ish' and no mods. I need this for everyday use on the air and have been looking for one for Yonks, have you got one that you will sell ? Ring Phil (G3XVP) QTHR. Phone Home 0532 812064, Office 0532 440378.
- SALE, 888A in good condx and working order, would part-ex for amateur bands CW Tx or Tcvr. Anything that works considered, please write to Edge (GØKUL). 3 Albert Rd, Bognor Regis, PO21 1NL.
- Repairs or Re-alignment service offered for your Eddystone, contact Dave Tizard, Weymouth, Dorset. Phone number is 0305-772927, he offers you a good job at a fair price (so say members who have dealt with him).
- SALE, valves for your Eddystone (or other), also polarised connectors for mains input on models i.e 840A. Also 32+32 muff E'lytics at 350 /500 v.w. new stock these. Philip Taylor, 3 Silver Lane, Billingshurst, W Sussex, RH14 9RP, phone 0403-785250.
- WANTED, EC10, EC10 II, EB35, EB36, EB37, 960, 820, Speakers type 652, 935, 899, 906, For cash, collection may be possible, Peter Lepino, Phone, 0374-128170, Fax 0372- 454381, anytime.
- SALE, 840C, 830/7, EC958, phone Wrexham, 0978-262855, evenings only. please ask for Wally.

EK 90 2.50 2.0

7.25

WANTED — ROUND DIECAST SPEAKER REQUIRED TO MATCH 680X, PREFERABLY GREY BUTANY COLOUR WILL DO.
ALSO SEEKING ORIGINAL HANDBOOKS - NOT PHOTOCOPIES FOR 840A AND 680X TEL. ANTHONY. 0686 630255

SALE - 358X. IN NEAR MINT CONDITION SERIAL NUMBER FW 3463 (1949). ORIGINAL POWER PACK 240V SERIAL NO KV 2353 DESIGN W. FULL SET COILS IN ORIGINAL WOODEN RACK NO BROKEN FINS OR MISSING SCREWS. PHOTOCOPY OF MANUAL BUYER COLLECT. NO TIME WASTERS. GENUINE OFFERS TO PHILIP SALE 0892 543685

FOR SALE EDDYSTONE RECEIVERS:
770S £175; 640 £60; EP17R £90; 40A £130; 888 £85; 670A £80; 990R £85; 990S £85; 840C £85; 680X £90; 940 £95.
CONTACT KATHY MOORE, TEL NO. 0706 218290, AFTER 6.00p.m. MUST BE COLLECTED FROM MOORE COTTAGE, 113 EDGESIDE LANE, WATERFOOT ROSSENDALE LANCS.

****** NOTA BENE ******

- SINCE EDDYSTONE WILL BE TAKING OVER THE ADMIN: SIDE OF E.U.G AS FROM THIS ISSUE? IT WOULD GREATLY HELP IF MEMBERS WILL SEND THEIR SUBS: FOR THE COMING YEAR DIRECTLY TO EDDYSTONE RADIO. ALL SUBS: for 1994-5 are due now !

- The address for all communications with EUG is now - Eddystone Users Group, c/o Eddystone Radio Ltd, Alvechurch Rd; West Heath, Birmingham, B31 3PP.

- NO TELEPHONE CALLS FOR EUG CAN BE ACCEPTED !!! Please do respect this as all the EUG work is being done by Volunteers.

- Mail for EUG will be split, admin matters will be dealt with by the Eddystone volunteers, technical matters for the Newsletters will be dealt with by myself as before.

- It is up to EUG members to prove to Eddystone that the offer to help out will be respected, so please do keep to the above guidelines.

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Eddystone Users Group - 1994/5 Subscription Form.

- Membership Number as on all previous communications, - _____

- Name, (Callsign, if any), - _____

- Address, - _____

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- Subs; Enclosed, - U.K- £_____ . O/Seas- £_____

- Method of Payment,- Money Order - Cheque. (payable to Eddystone Users Group).

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