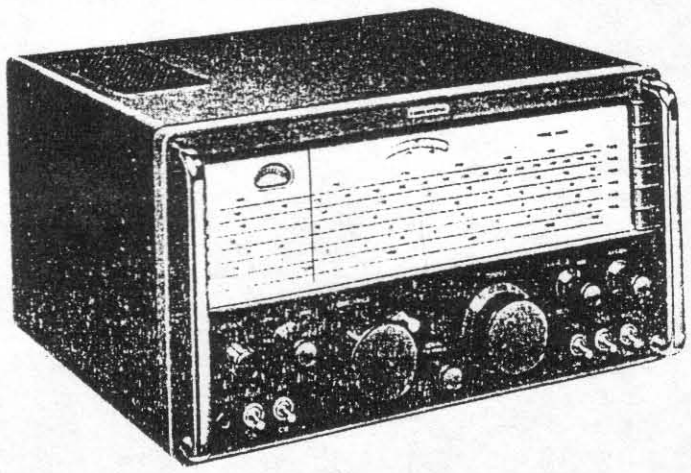
39

Eddystone User Group Newsletter

Issue No: 39 October 1996

Featured Model:
850/4 LF Communications Receiver



*A non profit newsletter for Eddystone Users
*Information quoted from Eddystone Literature by kind permission of Chris Pettitt, G0EYO, Managing Director of Eddystone Radio Limited

*Please address all mail to:
Eddystone User Group
c/o Graeme Wormald, G3GGL
15 Sabrina Drive,
Bewdley,
Worcs, DY12 2RJ
Tel:01299 403372

This is issue 39 of the newsletter and is the third of six issues for the year 1996/97. If you join after this issue you will get back issues 37,38 and 39 plus the next issue No 40 up to issue No 42. Subscriptions are £10 per year UK and £11 per year overseas. Metals EUG badges are available at £2 each.Any remittances for subscriptions, badges or manuals must be by cheque or money order and in sterling. We cannot cope with foreign currency as the bank charges for conversion are more than the value of the subscription. Make your cheques payable to **Eddystone User Group.**

Copies of manuals and circuits are available for most Eddystone receivers through the EUG with discounts for EUG members. Manuals cost between £3 and £10 depending on size, and whether original or a copy. Most manuals are now copies. Back copies of all newsletters are available at £2 each post paid. Contact Graeme Wormald G3GGL whose address is on the front cover.

Subscription renewals

This issue is only going out to those who have renewed this year.

New address for Eddystone Works.

For the record the following is the new address for the Eddystone Works, although please DO NOT contact us for Eddystone User Group activities, PLEASE route all requests through Graeme Wormald

Eddystone Radio Limited
Unit 8/9
Berkdale Avenue
Heeley Road
Selly Oak
Birmingham
B29 6UB

Tel 0121 471 2600
Fax 0121 471 4200

LATE ADVERTS

FOR SALE

Reducing collection, have for sale 680X, good working order, 730/4, GWO, 770R GWO, also 770U for which front end needs attention, not coil turret, all the above £60 each. Also 990R GWO £75. All with manuals. Will accept £300 for the lot. Call Bryan on 01507 327 745 after 7.00pm. (Lincolnshire)

Genuine, brand new and unused S.G.Brown Model F headphones with jack socket, suitable for use with Eddystone Receivers, c1960 vintage. £7.00 each including UK postage. Contact Wendy, Qualitas Radio, 0121 430 7267.(Birmingham)

Eddystone 770R 19-165 MCS. Working. £75. Buyer collects, or carriage extra. Phone London 0181 675 4622.

* ISSUE 39 *

- Time for another newsletter, and this time there really is some news ! A mystery receiver has become somewhat less mysterious, thanks to some very diligent Sherlocking by Graeme.

- For years now I, and many other EUGers, have been looking for info on the elusive model 720. Graeme has finally obtained a Parts List from the Factory and has come up with the info that the AO sized schematic has been sent to be put on microfiche. The parts list is heavily annotated but perfectly legible and we now know that the 720 used 7 valves of the B8A type as made by Mullard. Watch future issues for more details.

- The featured model this issue is the very versatile model 850, a true VLF/LF receiver that covers from 10 Kc/s to 600 Kc/s - just what you want for the new 73 Kc/s Ham band ! The most common versions are the /2 and the /4, and both are owned by a number of EUGers.

- Another 'trouvaille' by our very own Detective (Graeme) is a Factory list giving dates during which many models were in production, again the quality is not too good so I have done a re-type of this list and it is included in this issue.

- Those very interesting **EDDYSTONE SHORT WAVE MANUALS**, well having given # you all some glimpses from them in the last couple of issues, and this one, I have been told that Christine at Tech; Pubs; has done a short run of copies for Graeme. They each consist of some 40-50 A4 sheets and so cost and postage is considerable. If you want a copy of issues 1 to issue 6 of the ESWM then send a Fiver to Graeme, they are well worth the money and I still find myself turning to them when I have minutes to spare. The master copies have been done expertly from old issues by Jim Murphy, so thanks Jim ! (That is a £5 each copy).

- Those late payers appear to have taken the threat of excommunication to heart, latest from Graeme is that the defaulters list is much reduced, but there are some going to miss their N/L - well they were warned enough.

- PRICES, I honestly do not like being asked to give a value for any model to somebody, not having seen the set especially so. Yet those letters still come in, both from EUGers and others. A recent letter asked me how much his AS NEW model 940 is worth. Well since a "very good condition 940" was sold to an EUGer just this month for £18, and only last month another EUGer was happy to part with £150 for a 'Mint' 940, well you can see the problem. I have to say again, any model, no matter what the condition, is worth whatever YOU want to pay for it, depending upon how much you want the set ! If selling then it is worth whatever the other chap is willing to pay, depending upon how much HE wants it. Only logical n'est ce pas ???

- On that subject James tells me that he saw what was indubitably an 840A on sale at a recent Church Bazaar in Glasgow. Over the heads of others he looked at the sticky label on the top and thought it said £85, since it seemed to be in nice condition he was extremely interested - he has already got an 870 and wanted its Big Brother. Having shoved and pushed to the front he was astounded and delighted to see that the true price was £8.50. No hesitation at this time he handed over the cash and bore his trophy away home, where it burst into life as soon as warmed up. Now James had been willing to pay the asking price (as he thought it to be !) yet he got it for just one-tenth !

- Aerials (not antennas or antennae, they are for insects) are a mystery still to many EUGers. Recent interest in the mail about the new 73 Kc/s band has prompted some queries as to what kind of aerial to utilise at this LF allocation. One request is for the suitability of a Discone as used with a VHF/UHF scanner on 73 Kc/s. Wow ! There really is no need for this degree of ignorance, there are plenty of books in your library which explain all you need to know about aerials, or you can buy them from the lists that SWM/PW or Radcomm publish in their mags each month. In short though - have a look in this N/L, not gone into in great detail but a few tips.

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 # See back page for more details - Graeme.

- Speakers for use with Your Eddystone.-

- You can practically bet on the fact that each batch of mail received will contain one letter that queries the use of modern speakers with the older sets that require a 2.5/3 ohm speaker load.

- There is really no problem whatever in feeding your set into a modern 4 ohms speaker, they are available if you scan the catalogues. I have never ever heard of any damage being done by doing this, so go ahead !

- Again, 2 parallel connected 8 ohm speakers - if properly phased - may be used as a 4 ohm load and will perform well if fitted in one of the Eddystone diecast speaker cases so that one faces forward and one back.

- Those under set 'plinth loudspeakers' which used an elliptical type of 3 ohm speakerare hard to find. Such a 'plinth' can easily be made up for you by a friendly metal worker, 4 ohm elliptical speakers are available, or you can fit 2 side by side, paralleled 8 ohm speakers. A very neat and space saving answer to external speakers.

- Those diecast speakers, need one ? Well they are scarce and expensive so why not make clones from the one you have ? One enterprising EUGer now has 8 of these - one for each receiver in his shack ! What he did was to dismantle his solitary speaker and use just one moulding half. This was cleaned and then liberally smeared in vaseline. A bowl of plaster of paris was mixed up and then moulds were made of the outside and inside of the original. These were used to manufacture castings from a mixture of car filler resin - remember to use plenty of vaseline on the inside of the plaster mould before each filling, a little practice may be necessary says Don but eventually you will be able to turn out castings that when painted are almost indistinguishable from an original. The hardware can be contrived to suit, and there you have your very own Clone.

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- The 73 Kc/s Band, and what you can hear.-

- Okay I know, but there have been several queries as to what to listen to down there ! There really isn't anything down at such low frequencies to be heard ! And even when some amateurs do become active down there it is doubtful as to whether YOU will be within range of their signals. The very low powers that will actually be radiated from the allowed QRP transmitters mean that the chance of you hearing one is minimal. If CW is used - as seems likely - then you may just possibly hear a signal and if you can read morse okay. BUT you need a good aerial system and a sensitive receiver to have even the remotest chance of hearing any one side of a QSO. Don't hold your breath and don't spend lots of hard earned pennies on one of these super dooper all singing all dancing modern black boxes that is advertised as tuning from DC up to 30 Mc/s, far better to throw the cash out the window !

- Seriously though, I would advise you not to bother with VLF, wait and see must be the motto. After all there have been whispers that it is only temporary, this allocation. That soon there may be a Europe wide allocation around about 140 Kc/s ! Sorry to be so pessimistic pals.

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- Period Adverts.-

- My thanks to all those EUGers, amongst them Ron, G8 URU, for the copies of period ads and items sent in for this Newsletter. Your offerings may not get published in the next issue but they will all be file for future use.

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- Featured Model, the 850.-

- This LF only model is an odd one in the Eddystone range, with a lower frequency limit of just 10 Kc/s and an upper limit of 600 Kc/s the rather restricted range makes it of less use to the average listener than most of Eddystone's range.
- Unlike so many general coverage sets that have an LF range this set has had its circuitry tailored to suit, the highish IF of 720 Kc/s and the single conversion circuit has separate detectors for each signal mode.
- Selectivity arrangements are quite versatile with 2 independant crystal filters and a sharp LC filter tuned to 1,000 c/s for CW reception.
- Independant RF, IF and AF gain controls permit of a fine control of overall gain, assisted by an efficient AVC circuit with a carrier controlled noise limiter circuit and built in tuning meter.
- Audio outputs are available for an external speaker of standard 2.5 to 3 ohms impedance, for phones and for remote lines at 600 ohms. This latter is restricted to a maximum of 10 milliwatts for direct phone line connection.
- There is a kathode follower stage to provide IF output to feed a panadaptor and there is an external connection for the AVC line to permit use in diversity reception systems.
- The six ranges are 300 - 600 Kc/s, 150 - 310 Kc/s, 80 - 160 Kc/s, 40 - 85 Kc/s, 19 - 40 Kc/s, and 10 to 20 Kc/s. There is an adequate overlap on each range and an aerial trimmer peaks the RF circuits to compensate for aerial loading.
- A total of 11 valves are utilised in the /4 version being a mixture of modern B7G and B9A with the exception of the rectifier and stabiliser which are international octal types.
- The first RF stage accepts aerials of 75 or 300 ohms, both balanced and unbalanced types are catered for here. The 6BA6 amplifier is followed by the 6AJ8 triode-heptode frequency changer, on the /4 version there is provision for control of the local oscillator by up to 8 crystals.
- Both IF stages are AVC controlled and use 6BA6 valves, the crystal filters are located at the input to these IF stages, between them and the FC circuitry.
- The kathode follower uses a 6AU6 and takes its feed from the output of the second IF amplifier. At this point also the second detector and AF amplifier are fed, a 6AT6 provides these functions and also that of AVC detector.
- The SSB/CW detector stage is a 6BE6 valve and is fed from the output of the second IF stage.
- The audio signal now goes via the switched AF filter, a standard LC type, into the AF output stage which features a 6AM5 pentode. The AF output transfo provides the requisite output combinations as stated above.
- A 6AL5 double diode is utilised for the meter protection diode and the N/L stage.
- Mains rectification is provided by the usual 5Z4 followed by an OD3 for stabilising the HT supplies.
- Quoted sensitivity is better than 5 microvolts for a 15 db S/N ratio in the AM mode, above 100 Kc/s with some slight degradation below this frequency. In the CW mode the sensitivity is better than 5uV for 15 db S/N throughout the whole range.
- The varied selectivity arrangements give 3 positions of IF selectivity and there is then the AF filter which may be used for for CW only.

Position 1 gives a single crystal filter with 400 c/s at-6 db and 6Kc/s at -40 db.

Position 2 gives a dual crystal filter with 1.5 Kc/s at -6 db and 6 Kc/s at -40 db.

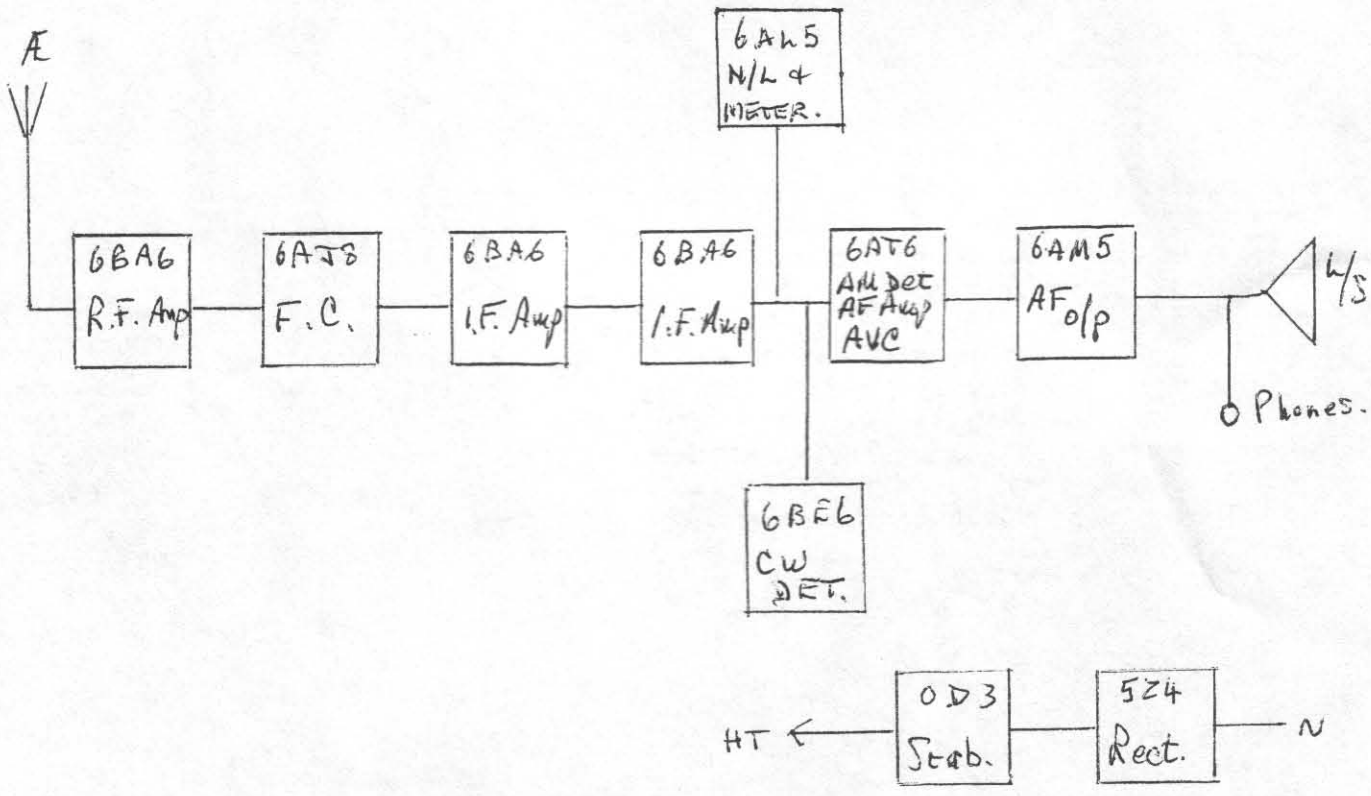
Position 3 gives normal transformer coupling with 6 Kc/s at -6 db and 15 Kc/s at -40 db.

The AF filter which may be used with any of the above gives a sharply tuned response at 1 Kc/s of 120 c/s at -6 db and 400 c/s at -30 db.

- Image reception at 600 Kc/s is better than 75 dbs.

850 cont;-

- IF breakthrough has been measured at less than 70db at all frequencies within the received ranges.
- Stability under conditions of continued operation - and after an initial warm up period of 2 hours - is unlikely to exceed 200 c/s, it is usually better than 100 c/s.
- Audio response is restricted to the narrower band that is normally used for comms; purposes and is within 6db over the range from 200 c/s to 5Kc/s.
- Due to the extremely low frequencies that are involved the servicing of this model should only be undertaken by experienced engineers and using the highest quality of service equipment. On the lower range especially it is so very easy to tune the LO to a point where the LO is tuned from 750 -760 Kc/s and this will give a coverage of 20 - 30 Kc/s, well outside the correct range of 10 - 20 as covered by the RF stages ! Use of a crystal calibrator for re-alignment, together with a really good signal generator is essential. Better still - leave well alone as these stages rarely need any readjustments.
- A block schematic of this model is included.



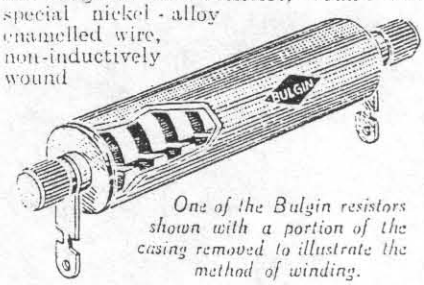
850 SERIES.

Facts and Figures

COMPONENTS TESTED IN OUR NEW LABORATORY

Bulgin Precision Resistors

FOR the purpose of making up various types of meter, it is often necessary to employ series or shunt resistors with a simple meter, and it is often found necessary to use exact values for this purpose. Whilst the standard type of component may often be employed, the tolerance may not prove good enough for the construction of laboratory apparatus, and in such a case some form of precision component has to be employed. Messrs. Bulgin now have a full range of such resistors, wound with special nickel-alloy enamelled wire, non-inductively wound



One of the Bulgin resistors shown with a portion of the casing removed to illustrate the method of winding.

on specially made porcelain formers. These resistors are provided with protective covers and the windings are treated to prevent atmospheric effects. They are guaranteed to have an accuracy, at 15 degs., of better than 2 per cent. The actual value to a figure of approximately half of one per cent. is always stated on the resistance. For example, type R.23, nominally 1,000 ohms accurate to plus or minus 2 per cent., if accurate to 1.5 per cent would be labelled as 1015 ohms. They are rated at 1 watt, at which the values remain constant, but may be used to dissipate 3 watts if a slight change in value can be tolerated.

Resistors accurate to half of one per cent. as the highest degree can always be selected and/or made to any particular exact figure, and there is only a slight increase of price, according to the work involved in such special values. Insulated terminals and soldering tags are fitted and the components are sufficiently light to enable them to be suspended direct in the wiring. The skeleton range covers from .1 ohm to 1 megohm, and values up to 2,000 ohms cost 6s., whilst the ranges from 5,000 ohms up to 1 megohm increase in price up to 24s.

H.M.V. Price Increase

TWO new radiograms, and an increase in price in others, is announced by His Master's Voice. Model 488 is increased to 29½ guineas and model 485A is increased to 38 guineas. The two new models are for mains operation, one an A.C., and one a Universal A.C. D.C. model, both priced at 25 guineas, and both being of the superhet type. The A.C. model embodies a frequency changer, I.F. amplifier, detector and A.V.C., L.F. and pentode output stages, with full-wave rectifier. The Universal model embodies a frequency changer, I.F. amplifier, detector and A.V.C. and pentode output valve with a U.30 rectifier.

Brown Headphones

THE well-known type "A" headphone with adjustable reed is again available to the home-constructor. This headphone is generally recognised to be the finest in the world, and in place of the usual type of flat diaphragm a spun aluminium diaphragm is employed and this is attached to a reed tuned to 900 cycles. The method of construction is novel. To a very powerful magnet made from 35 per cent. cobalt steel are attached two laminated pole pieces holding the coils, which are wound with the finest quality copper wire. The magnets and coils are adjustable in respect of the reed by means of a movable bridge, thus enabling each user to obtain the required degree of sensitivity. The double headband, made of polished aluminium, is universally and completely adjustable. These 'phones are used in the Royal Navy, Air Force, B.B.C. laboratories, etc., and are the most sensitive instruments of their type which are available. The price for the standard model is 50s. per pair, and a single handphone embodying one of the units costs 25s. The standard resistance is 2,000 ohms per earpiece, but special resistances can be wound to order without extra charge.

For those who require a cheaper model, standard featherweight models are available with the flat stalloy diaphragm, and these cost 20s. per pair, or a single handphone for 12s. 6d. The type D is a more sensitive flat-diaphragm model with 35 per cent. cobalt steel magnet, but otherwise similar to the Featherweight model. The double headband as fitted to the "A" type is provided and the cost is 35s. per pair or 18s. 6d. for the single handphone.

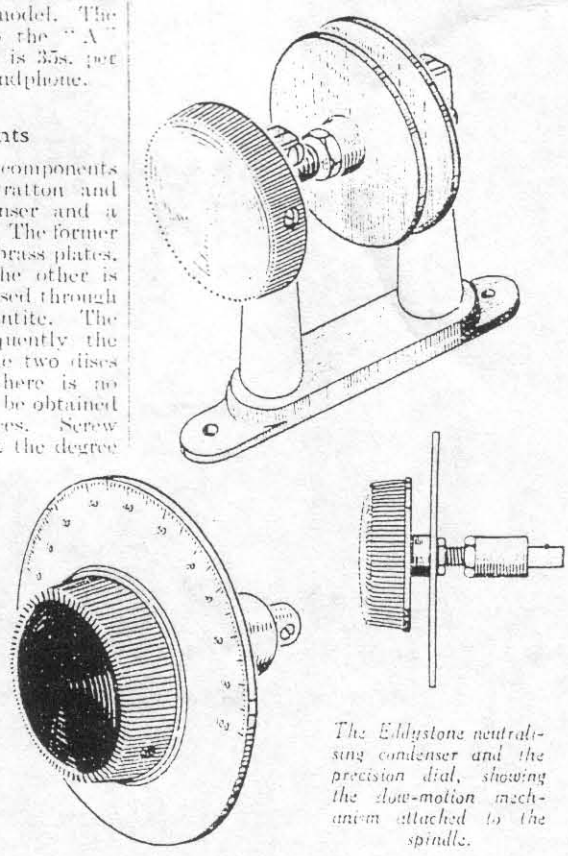
New Eddystone Components

AMONG the new Eddystone components introduced by Messrs. Stratton and Co. are a neutralising condenser and a precision 4in. slow-motion dial. The former consists of two large diameter brass plates, one of which is fixed, but the other is attached to a threaded rod passed through a supporting pillar of frequentite. The discs are turned and consequently the variation is proportional as the two discs approach one another and there is no erratic variation such as would be obtained if they had irregular surfaces. Screw adjustment is provided so that the degree of tension on the rod may be adjusted and the instrument rendered completely free from vibration or other variation. The maximum capacity is 5 m.mfd., and the price is 12s. 6d.

The precision dial consists of a 5-16th inch brass scale which is silver-plated and the graduations are machine cut. The slow-motion drive is incorporated in a large-diameter brass barrel mounted on the spindle and reduces the drive 6 to 1. For registration or setting purposes a small plate is supplied with a machine cut on it, and the edge is ground to coincide with the edge of the dial and two short bolts are provided so that it may be attached to a panel. The control knob is of large diameter and affords a comfortable grip which greatly simplifies tuning on an ultra-short-wave receiver. It may be used in transmitting equipment or laboratory apparatus, and can be supplied with ¼in. fitting. The price is 15s.

Loudspeaker Centring Gauges

SERVICE engineers will be interested in the new range of centring gauges produced by Messrs. Holiday and Hemmerdinger. These are designed for use when a moving-coil speaker has to be reassembled or when a speaker has been damaged or is to be tested. They are supplied in a neat wallet in which they are arranged in four sets, each set being a different colour and thickness. The four thicknesses are .015in .010in., .0075in. and .005in. To re-centre a speaker, or rather, speech coil, the locking screw or screws are loosened, and four gauges of the appropriate thickness are inserted symmetrically in the gap, and the screws are then tightened up and the gauges withdrawn. This makes the process very simple and it may be carried out in a very few minutes with the knowledge that the speech coil must be centred truly, unless it has warped or become distorted. The price of the set of gauges is 2s. 6d., complete with wallet. The makers are Messrs. Holiday and Hemmerdinger, Holmer Works, Dolefield, Bridge Street, Manchester, 3.



The Eddystone neutralising condenser and the precision dial, showing the slow-motion mechanism attached to the spindle.

- The Factory Model Date List.-

- When ever such an item comes to the light of day, we at EUG read it with interest and in the hope that some more light will be spread on the many so far unexplained mysteries that go along with the history of the Strattons/ Eddystone Saga.

- As was only to be expected I found several points explained, points that had so far been obscure were cleared up. Unfortunately I also found many more points that need to be clarified from other as yet undiscovered sources.

- Lets start with the AllWorld Six, dated here at 1937. I have no previous record of this model, which is certainly not mentioned in the Factory Blueprint Register. Why not ? There is no doubting the authenticity of the List itself so could the author have been confused ?

- How about the omissions ? in particular the original 680 ? Here we have mentioned the 680/2 variant which was for the New Zealand Posts & Telegraph Administration. The /2A is not mentioned but this too went to the NZ P&T.

- What about those mystery Tv sets made in about 1968, the Projection model type 793 and the Console model type 800 ? Not a word about either, yet they did exist !

- How about that 730 series which we do know went up to /10 suffix ?

- And the well known 888A, not a variant of the 888 but a completely new model, where is it in this list ?

- Whatever was the model 902 ? or the model 929 ? And the 961 MkI and MkII of which we know ZILCH ???

- As I say some posers answered but a whole new set of conundrums to work on in the future. PLEASE - Yes YOU out there ! If you can help elucidate any of the above then please do get in touch with me via Jim Murphy and let me update my files.

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- The 640 and IF Pickup Problems.-

- These have been mentioned before in early Newsletters, but changes in the frequency allocations and/or powers of Medium Wave stations occasionally seem to highlight this problem. Personally I am surprised that there can be any 640s left out there without this simple mod having been done, must be some though !

- The problem appears to be one where the offending signal is picked up by the projecting short length of spindle of the crystal phasing condenser, this being especially strong when one has the knob held between the fingers for adjustment. The body acts as an aerial and is coupled capacitively to the spindle thence into the IF circuits.

- The cure is so simple as to lead me to wonder why it was not adopted during production runs ? Or maybe it was ?

- In this particular case the owner of the 640 lives about 60 Km from the ORO transmitter just outside Munich, that broadcasts German programmes on a frequency of 801 Kc/s, twice this equates to 1602 Kc/s and so you have the IF plus about 2 Kc/s. Well now, the spindle of the crystal phase condenser is at a higher point of potential (to RF) than the stator. Just by reversing the rotor and stator connections we can put the stator at the high RF point and the rotor at a lower, more earthy, point. Q.E.D. Try it and prepare to be amazed. This is certainly a mod that is acceptable in my eyes, so if not already done on your 640 - do it. Who knows when a 1 Megawatt transmitter on 1600 Kc/s may open up on your doorstep ?

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- Simple DIY Receivers.-

- A look through these ESWMs shows just what excellent reception results were possible in the early days with nothing more than a 2, 3 or 4 valve receiver. A comment in one letter was to the effect "ah but that was in the 30s, you can't expect that today" - what rubbish (sorry Alan !). There is every chance of getting excellent results from a simple DIY receiver today, and the fact that there are so many more stations out there means you have far more to listen for.

- Several EUGers operate simple sets alongside their Eddystone receiver & have shared their results with me, proving that a 2 valver can give you more than enough signals strength if fed by a decent aerial.

- One receiver mentioned is a 2 valver using 2 acorn type valves. With this the log that Dave sends in covers 4 pages of his letter, from Iran (in English) to Radio South Africa !

- Another 2 valver uses a single 6SL7 double triode with just 90 volts of HT from a battery, Colin has heard several low power South American stations and a multitude of USA stations, both on MW and SW.

- What I am coming to is that a DIY project to build a replica of one of the simple straight, TRF, Eddystone receivers could be well worth your time. Let me know the model that interests you and if you do not have a schematic or details then I promise I shall do my best to dig up all you need from the EUG files, up to YOU then to get the bits and build the set. No need for a mains psu as such sets are better operated from batteries, at least whilst you are experimenting.

- A 4 valve straight TRF set, such as the circuit of the Kilodyne 4, would be for the more technically minded EUGer, but results would be very good. I know of one Kilo-4 that is used abroad for daily listening to the Beebs World Service on 9.41 Mc/s, and yes audio reproduction is via a period horn speaker !

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- Holidays Over, Subs; Paid, Back to Work.-

- This appears to be the theme of one recent letter, and plans are afoot for a complete clean and overhaul of the station receiver, a much used 840C.

- The owner states that a first clean up job is to remove the glass and to clear up some of the dust from the scale plate. The knobs are dirty too and will be soaked in meths before being attacked with a toothbrush. This same 'tool' will be used to clean out the corners and crevices of the front panel and case.

- From past experience it is known that the valve bases and holders tend to attract and hold dust, which with heat becomes a conducting path. All of the valves will be removed and cleaned with the brush and meths, as will the surfaces of the valve holders.

- The variable condenser block attracts dust and here a long-soft bristled artists brush is useful for clearing the dust from between the plates, but gently so as not to disturb the geometry of the plates else re-alignment will be necessary.

- The top of chassis will be cleaned with the XYLs vacuum cleaner - not whilst she is at home, of course ! This is best done with the long narrow nozzle fitted.

- Whilst the set is open on the bench all of the rotary controls will be fed with a few drops of switch cleaner fluid, this will go on the gears of the drive system too.

- One last check will be made before the set is cased up and powered up, it is always best not to power these AC/DC sets up whilst out of the case. Safety reasons apply here, but DO please check that all valves are in the correct sockets, and fully inserted.

- After all this TLC there is but one thing to do, sit back and enjoy the magic of Eddystone !

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- Prefixes and Suffixes.-

- A letter from one EUGer calls me to task for assuming that some things are either common knowledge or clearly understood by everybody ! Sorry Jack and I shall accept your reproach, and exculpate myself by saying Mea Culpa.

- What Jack asks about in his letter are the various prefix letters and the suffix numbers and letters that adorn the basic Eddystone model numbers, so here goes.

- Lets begin with the prefix letters, and where best to start but with the commonest one of all. The 'S' letter as used before model types like S.730 or S.770.

- Now I have a letter, or photocopy thereof, from no less a person than Brenda Taylor who joined Eddystone in 1946 and was there throughout the 70s when she was Chief of Sales Services. The letter dated June 1956 states that the 'S' prefix had stood for Strattons, the original company name and that after the name was changed to Eddystone Radio the prefix 'S' was allowed to die a natural death. Mrs Taylor further comments that later models used a variety of prefix letters.

- I have also been told by a former draughtsman at Eddystone that the letter 'S' used as a prefix had originally been used to designate 'Specification', but then his is a lone voice on the matter as I have discussed this with a number of former Bath Tub employees and they stick to the former explanation.

- The later use of letters can be more easily explained, as below,-

EA as in EA12, the E for Eddystone (naturlich!) and the A for Amateur Bands (only).

EB as in EB35, well here the B is for Broadcast, since this model was described in company literature as 'an enhanced performance broadcast receiver'.

EC as in the EC10, here we have the C for Communications, what else.

EM as in EM34, the only one I know with this letter M, it stood for Marine receiver.

EY as in the mysterious EY11, never met one myself but it meant Y for Yachtsman. Has anybody out there seen one ? please tell me.

EK as in EK90, another mystery model but here I cannot even be sure that it got out of the Bath Tub, nor do I know what K stood for. I feel awful having to admit this so if anybody can help me please get in touch.

EP was for Panadaptor as in EP14, or 15 etc; simple this one !

- Now for some of those suffix numbers and letters, letters first. The 'A' and 'C' denote the type of case and front panel used, and in almost every case there was a definite change in circuitry involved.

- First off came the basic number of the model, i.e. the 840 where we had a rectangular dial cutout with half-round scales. The progression to the 840A gave us a first generation of scale known 'slide-rule scale' to us enthusiasts. There was also a change in circuitry to accompany this almost full length scale styling. Last of the series we got the 840C, which was a modernised case styling with the by now well known slide-rule scale and more changes to the circuitry.

- An incidental fact here is that many consider the performance of the 840 and the 840A to be superior to that of the 840C, well it will be so if the owner ignores the fact that the 'C' version of the 840 has a Lo-Z aerial input whereas the 840 and 840A have Hi-Z inputs. Match them properly and the 840C gives a good account of itself, but I digress, onwards Ted.

- The numbers suffixes come next. The simple model number (no suffix) denotes the first production model, i.e the 730. The addition of suffix figures with an oblique stroke as in 730/1, or /6 denotes a modification made to comply with certain changes in circuitry or hardware as required by a customer such as the MoD or a foreign government (Canada). Some models such as the 730 went up to /10, or even /12 for the 830 series and the meanings of all the various figures can be found in my earlier published list of Models (get one from

Graeme if you send £2 to cover copying and postage). Okay now Jack no more complaints or I shall cry !

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- A Nice little Baby ! -

- Baby came home in a Sainsburys shopping bag, the umbilical cord trailing out the top of the bag. That is how this 870A arrived at the shack of Stan, and he had not even wanted to go to the carboot sale. The decision to go was made for him by the XYL, an inveterate bargain hunter.

- The 870A was spotted by chance and the asking price of a mere £5 was due no doubt to the crack across the dial glass. Apart that a quick visual check showed nothing wrong - it did not even rattle ! One minor blemish on the paint at the rear left corner showed that it had been 'bounced' there, cause of the cracked glass no doubt.

- A check on the mains cable showed that it was in good nick but with these AC/DC - so called Universal sets - I always like to check them out inside before applying the ergs (you are ex-RAF Stan, I know that expression, T).

- Opening up the case produced no surprises at all, remarkably clean and a brisk swipe with a clean brush removed the dust. The dropper looked okay too with none of that flaking which shows a long hard life. In fact my impression, says Stan, was that the set had been rarely fired up.

- Continuity and insulation checks came next on the menu, no surprises here either but it is always best to check chassis to cabinet insulation on these AC/DC models. So often are those vital insulating washers left off or misplaced after the set has been stripped and cleaned.

- With an apparently good set on the bench it was plugged in and powered up whilst a watchful eye and ear was kept nearby, those electrolytics can misbehave after years of non-use. After warmup and a few minutes of troublefree operation an aerial wire was shoved into the 'hole at the back' (XYLs terminology).

- The 870A performed flawlessly from the word go, all bands okay and in the calibration accuracy as specified by Eddystone. This was never meant to be a professional set, it was designed for use by Merchant Navy types in their on board quarters and to keep them in touch with Blighty whilst tramping the China Sea picking up enough cargo for a trip home. As such it worked fine. From the QTH in Lincoln it was possible to tune in stations from all around the world whilst using a 'throwout' aerial wire of some 25 feet. Radio Australia was a regular morning signal at good strength, as was Radio South Africa.

- A final comment from Stan is to the effect that the 870A is the best Fivers worth he has ever got ! But unfortunately the 15 yearold is getting keen on its short wave capabilities so who knows ?

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- Micro-wave Oven Design, and Eddystone ?-

- A new member comments to me in his letter that having recently seen his first ever Eddystone Twin of circa 1925 (where ?,T.) he wonders whether the idea of 'watching it cook' was pinched from Eddystones early models with their glass front panels ? An interesting observation Brian but then, hopefully those early sets were not meant to 'cook'. Seriously though Eddystone may have hit on a good selling gimmick in that the bright emitter valves of the 1920s would have given enough glow for the owner/operator to see 'how it worked'.

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The Eddystone Twin 1924/6

GRAEME - G3GGL - TELLS THE TALE
OF HIS PRIZED POSSESSION

It was at the start of the eighties that the vintage bug first bit. Like many of my generation I got ensnared in the wireless web as a schoolboy just after the War, when the never-ending avalanche of government surplus started as a trickle. R1155s at £10 each weren't much good on half-a-crown a week pocket money. So this modern stuff was augmented by loads of twenties kit, sold in scruffy shops in areas which your parents wouldn't let you visit. Some of it came as whole sets but most of it was sold loose, rather like a car-breakers. Telsen; Ferranti; Lissen; Eddystone, the names kept on coming.

You'd already made your crystal set, so you spent your pocket money on a second-hand triode which you heated with a cycle-lamp battery and a bit of electric fire element to drop the voltage. And a 16-volt grid bias battery for HT. The headphones from the crystal set, the magic of reaction, and there you were, AFN Munich-Stuttgart every night! Then all you needed was a PM2, an intervalve transformer and a moving iron speaker. We all did it! And the circuit was always the same.

Time went by. You became a ham, or you didn't... You grew up and did your National Service... And you moved on... And one day someone says to you "What's that funny thing in Roger's Antique Shop?" and you say "That's an 0-V-2." and nobody knows what you mean and you realise you're in a time-warp!

Then a colleague brings in an old wreck of a set and says "Can you help me get this going?" It's an Eddystone Twin. You know that because it says so on the glass front panel. The broken glass front panel. It had been on a shelf in old Tom Parton's Wireless Repair Shop in Ward End (that used to be a fashionable part of Birmingham). When Tommy retired in the early seventies after a lifetime in the business he sold the premises to Sladefield Engineering. They left it there on the shelf. It was too much trouble to move it. Then in the late seventies they outgrew the premises and moved up the road. The junk went in the skip and that's where my friend found it. The top had cigarette burns; the battery box had acid burns; the side had a hole burnt in it with a red-hot poker... and the inside was pretty mangled. Someone had added alien components, presumably to eliminate the detector HT feed. The intervalve transformer was open circuit. It's a wonder the whole lot hadn't gone up in smoke.

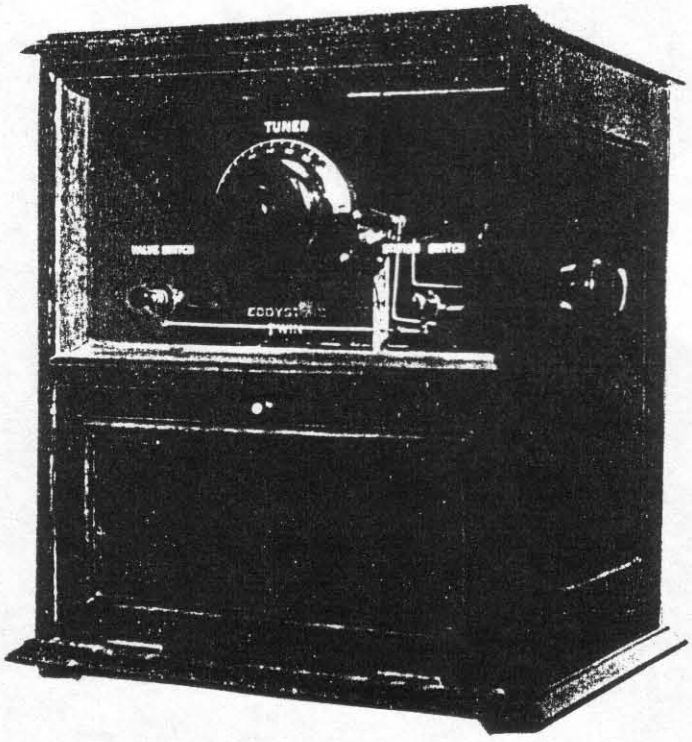
Some aficionados have a philosophy about restoration. They say don't do it. Keep the set as it's found. OK, if it's found in a cupboard in a grand mansion, fair enough.

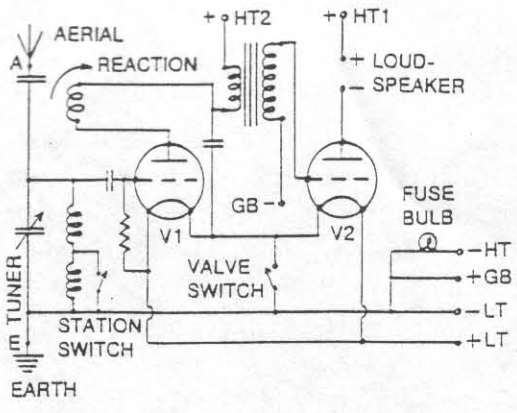
But something which only survives by being overlooked and then ends up in a skip deserves better. A total overhaul; the works. A lot of T.L.C. and then the old lady starts to smile. A little application of DC and she starts to sing. A little croakily and a little scratchily, but wasn't it always thus in the twenties? No moving coil for the likes of an Eddystone Twin!

It went back to its new owner and sat there for many years in pride of place on the sideboard. Yes, my friend was a bachelor! He retired from the rat race and we drifted apart. Cards at Christmas, except he sent his at the New Year. He didn't think it seemly for a nice Jewish boy to celebrate an alien festival. And then I joined E.U.G. I'd had a 680X for years but it took a visit to the V.C.F at the N.E.C. to actually trigger the grey cells and get with it.

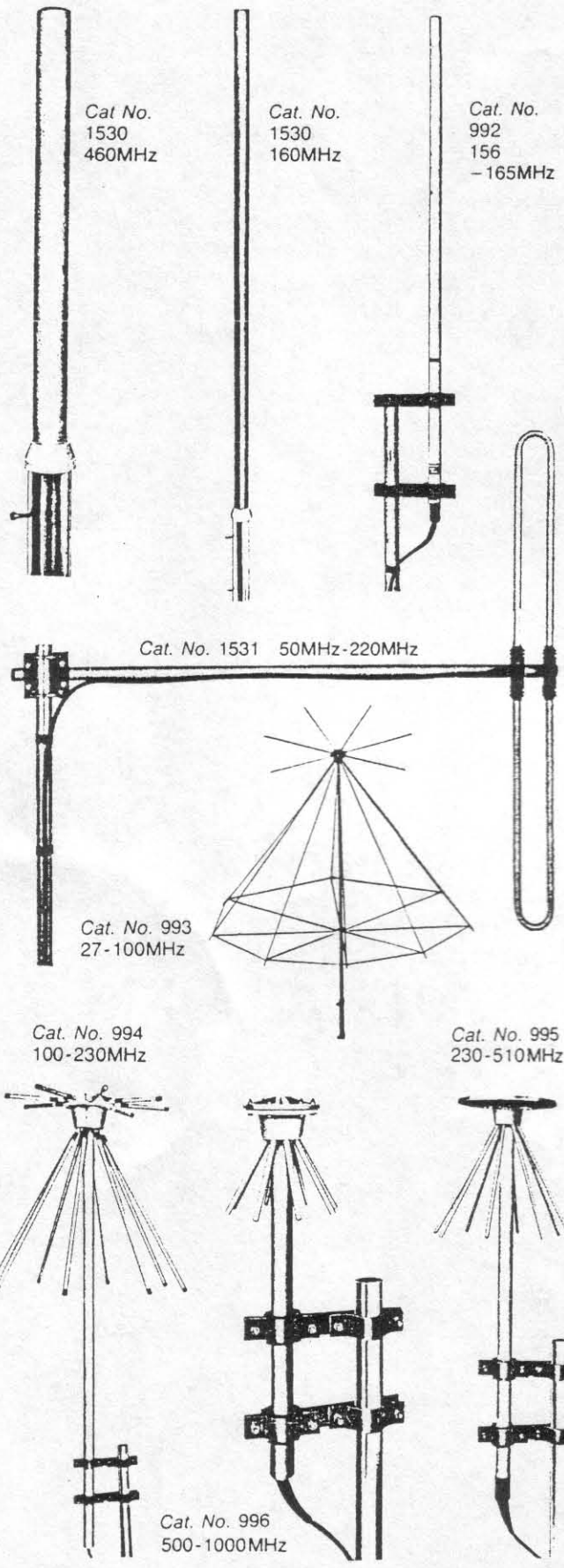
It slowly dawned on me. All those years before, I'd actually had the Holy Grail of Bromsgrove Street pass through my hands and I hadn't killed to keep it! A crisis of agony... had John still got it? Would he sell it? Had someone else had it? Pick up the phone? No; far too delicate to mention on the phone. A letter; that's it, a letter. Much more diplomatic.

A week, two weeks, and then John called. "Hello, Graeme, just read your letter. I've had a heart attack and spent a fortnight in the East Birmingham. Oh, yes, the Eddystone. I've got bored with it cluttering up the place; yes, come and get it. Anytime you like; no, of course I don't want anything for it." It's a good job I sent a letter, isn't it?





VHF/UHF



VHF Sleeve Dipoles

Available in versions from 100MHz to 500MHz for general mast or tower mounting (Cat. No. 1530) and as special marine version covering 156-165MHz (Cat. No. 992).
Strong, weatherproof, potted construction of Fibreglass sealed with epoxy resin. Cat. No. 1530 aerials are slide fit inside standard scaffolding mast, but standardised mild steel mounting brackets can be provided (standard for Cat. No. 992 marine dipole).
Bandwidth 5% of centre frequency. Gain is unity over half-wave dipole, 3dB over isotropic. Impedance 50Ω or 75Ω.

Heavy Duty Folded Centre Fed Dipoles

Cat. No. 1531 available for frequencies 50MHz to 220MHz. Most standard radiotelephone bands can be covered with wide bandwidth and good VSWR characteristics. Gain is unity over dipole, 3dB over isotropic. Impedance 50Ω. Very rugged construction of anodised aluminium alloy with low density polythene insulator. Boom and brackets supplied. Marine version available in stainless steel.

Eddiscone Omnidirectional Antennae

Ideal for applications requiring well-defined gain, VSWR and bandwidth characteristics.
Four main versions cover range 27MHz to 1000MHz with 75Ω or 50Ω impedance, and special versions can be provided if required. Gain is unity ±1dB compared with a half-wave dipole.
Rugged construction of anodised aluminium with epoxy resin sealing. All versions supplied with brackets for mounting on masts of 1½" to 2½" diameter.

Telescopic Rod Aerial Cat. No. 991

A nine section telescopic chrome plated aerial extending to 104cm (41in). Especially designed for use with the EB35 Mk III or earlier receivers such as EB37/EC10 when an outdoor aerial is not practicable. Supplied complete with insulated fixing clip and screws.

HF Receiving Aerial Cat. No. 731/1

This doublet type aerial is excellent for general shortwave reception. Electrical interference and other noise picked up on the twin feeder is balanced out, with a consequent reduction in background noise.
The two sections forming the aerial should be mounted as high as possible, and well out in the open, free of all other objects. The flexible down-lead is well insulated and is taken directly to the receiver, no additional lead-through insulator or insulation being necessary.
The aerial is supplied complete with end and centre insulators and is ready for immediate erection, requiring a horizontal spread of 10.5m 35 feet). The twin feeder is connected and is 30.48m (100 feet) long.

Comprehensive Data Sheets available upon request.

Low Resistance Earths, cont;- from next page.

- This earthing system could only be compared with that which had been in use previously, the mains earth on the 3 pin plug. Tuned to a clear channel on LW on his 870A Frank compared the two systems. The amount of noise of the broadband 'white' type was considerably more on the mains earth, also a fair level of computer type burble could be heard (an often mentioned problem with modern mains earthing systems). This was completely inaudible when using the new Lo-R earthing system.

- In actual use with MW Dx stations reception was considerably improved as now the lower noise level enhanced the more powerful signals giving a double degree of improvement ! It may have been imagination but the ATU appeared to tune more sharply with the multiple rod earth in use. The 870A was used as it has often been found that this set is more susceptible to use of an earth than is either of the other shack sets, an 830/7 and a 940.

- An added bonus was that several new NDBs could be heard at the top end of the LW band - Blackpool had never been heard before in Stafford, but was now a regular signal.

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- Those Scientific Models.-

- A recent letter, and a not so recent letter, both mention the Scientific 4 model. One letter queries the existence of a Sci-2 and Sci-3, the other goes so far as to doubt the existence of a Sci-3.

- Well let me be firm here, YES there really were the three models, a -2, -3 and a -4. Company ads and literature clearly mention all three sets and I have ads with pictures of the -4 and mention of the -3. The -2 comes from the Blueprint Register and came out in 1932. Okay ?

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- Resurrecting a Defunct S.504.-

- This 504 came from a Silent Key sale and was bought together with a pair of period S.G. Brown phones.

- Since the mains lead was of the rubber covered variety and was horribly cracked such that bare wires could be seen, and touched, it was necessary to open up the set to replace this lead. At this time a test of some paper type fixed condensers showed all were okay so it was decided to risk a power up, albeit with a 60 watt bulb in series with the mains to begin with. This was left to stew whilst some visual checks were made, and some dust was brushed off the top of the chassis. When full mains was applied it was across the 250 volt tapping and the set came to life instantly, with a short wire aerial in the socket full coverage of MW was available.

- When calibration checks were begun it was found that such minimal differences existed at the HF ends that no re-alignment was attempted. Only when the time came to switch off was it found that the mains switch was intermittent in that sometimes it stayed on, sometimes it stayed off ! Just a weakened spring I guess. This must have been the reason why the set had not been in use by the previous owner, a new one was bought and fitted in less than a half hour, the set has been in use now for almost 6 months with no problems at all, and has given much pleasure.

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- The 720 Audio Response Curves.-

- I just could not resist publishing this, the bit at the top about NOT FOR PUBLICATION was just asking for it ! (Sorry Chris).

- Actually before any of the Audiophiles amongst you EUGers gets palpitations I must explain a few things. We are NOT talking about a Hi-Fi setup here, just the opposite in fact. The 720 was a comms set, for use on board small vessels where use of the set would almost always be in an area of high noise level. If you have ever been on board a smallish yacht when there is a gale blowing then you will realise what I mean.

- What is needed here is a set that has a fairly high output but within a seriously confined band of audio frequencies, those which convey intelligibility at voice frequency. As such a further careful look at the curves will show that they do manage to succeed pretty well in doing just that. No useless bass or treble bands which would simply add unwanted noise to the signal. The use of the variable selectivity switch would further cut all the sidebands and this would be of much use when listening to such as the Consol signals, or when taking CW signals such as from NDBs.

- So now I wonder why ??? - Why was it not for publication ? After all they did publish the curves for such as the 750 and 680 sets ???

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- A New Long Wave Station.-

- I see that a new LW station with a massive 2 Megawatts is with us ! It may seem a daft question but does anybody need these powers ? Does anybody listen to them ? Would not the object be more easily achieved with a lower power on a higher frequency ?

- Electronic pollution has reached such levels that I often query the necessity for so many stations to have multiple high power outlets. Total power radiated at any one time must be unimaginably high - all types of emissions included it must be around thousands of Megawatts, to what avail ? Does anybody really tune into such as Albania with its dry government produced statistics ? Or is it necessary for the former USSR stations to broadcast simultaneously on as many as thirty channels on short wave ?

- This is a particular hobby horse of mine, electronic pollution, so please bear with me when I get going !

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- Low Resistance Earth Connections.-

- Of course this was dead easy in 'the old days' when all main water pipes coming into the house were of iron, connected to the massive iron mains that ran the length of the road you had a guaranteed pretty low resistance earth for your wireless. These days when the ubiquitous plastic pipe is KING then we have to look for another method of achieving that fairly low RF earth.

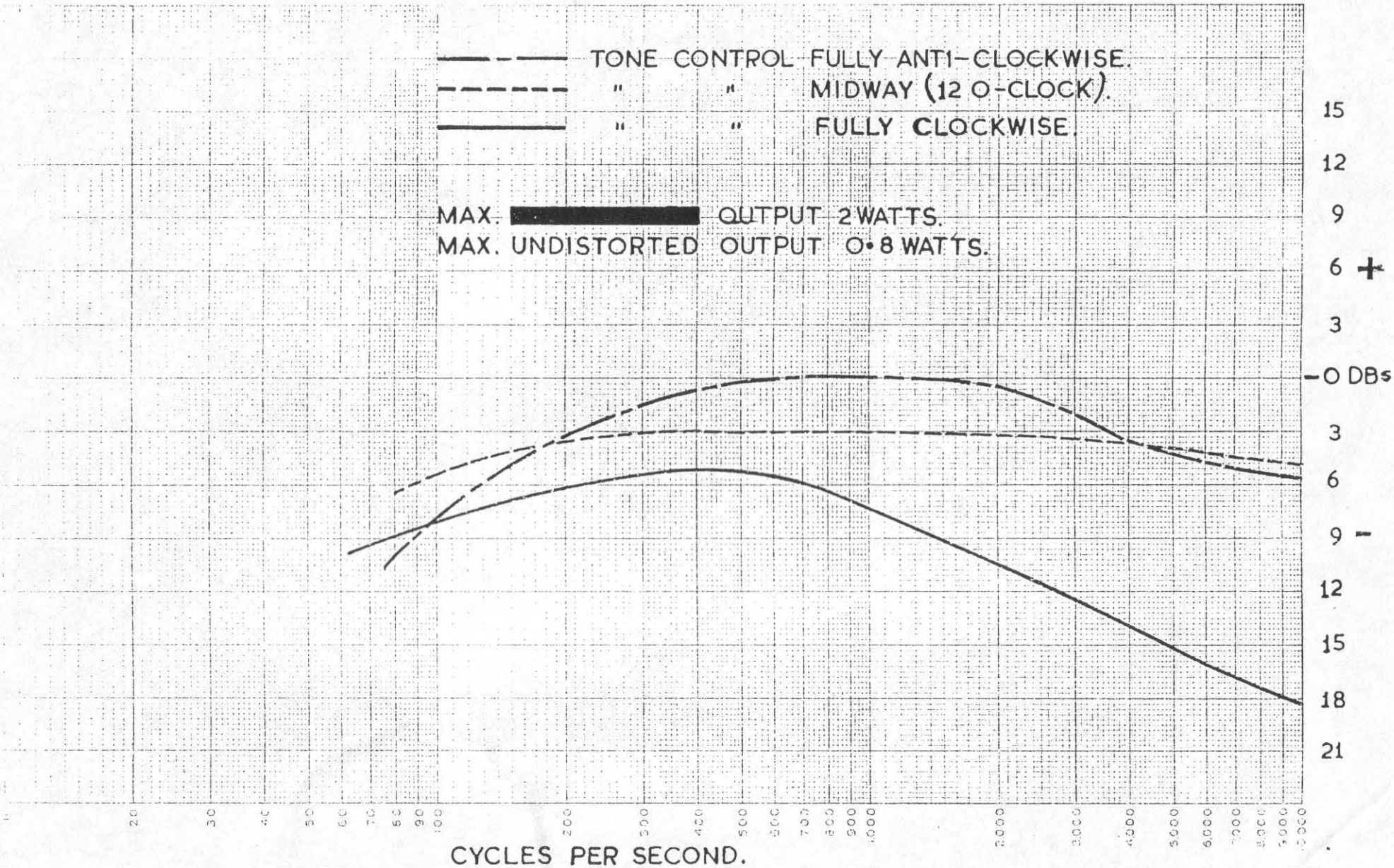
- Frank reminds us that whereas one copper earth rod will be a great help, and much better than nothing at all, if one is good then x rods in parallel will be x times better. Remember that resistors in parallel give a lower overall resistance.

- Putting his money where his mouth is Frank has bought 5 copper earth rods each 4 feet long. To start with he put one rod in below the shack window, to a depth of 3½ feet in garden soil. He put another in a few feet deep about 15 feet away and using the Avo 8 he got a reading of 35 ohms, ignoring the minimal resistance of the leads and connecting wire. This was not bad if one considers recent weather. Putting the other two rods in below the shack window, each about 6 inches from the first, he connected all 3 together and then did a recheck and got a new reading to the remote rod of less than 20 ohms. Not bad eh ? he thought. In went the fourth rod alongside the other three but now he could not do a recheck but assumed it would be even lower.

cont:- p.14

NOT FOR PUBLICATION.

S720 AUDIO RESPONSE.



BP 739

- EC10 BFO Problems.-

- This EC10 has been in almost continuous use for many years at the same QTH, operated off the mains via the built-in psu. There has only been one previous fault when the rectifier in the psu went 'dud' and had to be replaced by silicon diodes, the actual receiver has always performed without fault.

- Recently there appeared a problem with the BFO which would sometimes fail to come on when the switch was pushed in, on other occasions it would come on okay, only to fail within minutes.

- First thoughts went to a switch malfunction but simple tests were made by shorting out the contacts on the BFO switch and still it failed to operate. Having the set open and upside down on the bench a few tests for oscillation were carried out, just touching with the probe of the scope was sufficient to show oscillation or non-oscillation.

- What showed up was that a fairly low level oscillation was occuring as the switch was pushed in (on). Also that within seconds this failed completely although there was still a lower value of DC on the transistor.

- A glance at the schematic in the handbook showed that the collector of this trannie ought by rights to have a voltage of 6.3 volts negative when the bfo was working, and nil when switched off.

- In the event the collector never did get up to this figure even when the bfo was working, it was around 4 volts then and when the bfo failed it dropped to about 1 volts.

- This seemed to be a case for the List of Receiver faults that came from Eug a couple of years back, out comes the file with the List. The problem of those 'whiskers' on germanium trannies seemed to suit the situation and so a first check was made to find whether those seemingly superfluous case earth leads were still intact. They were, so the lead for the bfo trannie Tr6 was chopped in such a way as to ensure there was no contact between trannie case and PCB earth. Further checks now showed that the bfo was operating every time the switch was operated, and that the trace on the scope was almost twice as high as it had been previously !

- Before putting the set back in its case a decision had to be made as to whether all the earth leads to the other trannies should get the chop. Voltage checks on the others showed all at the correct level as per the table on the handbook so it was decided to leave well alone whilst bearing in mind the possibility of this being a cure for any future problems, such as low gain or even no reception. Assuming all the trannies that are fitted came from one batch & given the fact that one has now failed, it will be of interest to see whether any more go within a short time. A case of is it a case of age or is it pure serendipity that causes them to go leaky from collector to case. John.

- - - - -

- Newly acquired 840A, Low Gain.-

- The arrival of this 840A meant that Steve now had two Eddystones, an EB35 had been in solitsry splendour previously but having long been a radio service man in the 50s it was thought necessary to get a 'valve job' as well.

- The set seemed okay and was powered up after a few checks, performance seemed only marginal on short wave and on the MF band it was definitely poor. A quick check around and it was noticed that unlike the EB35 there was no shorting link in the second A socket at the rear. Now this is important as it earths the bottom end of the aerial coil when a single wire aerial is in use, not needed when a doublet is used though.

- Pinching the link from the EB35, on a purely temporary basis, and fitting it to the 840A rear panel cleared up the problem immediately and several hours were spent playing happily with the set.

- A solution had to be devised though so that the link could go back where it belonged. Using a buckshee piece of paxolin cut from an old terminal strip

cont; 840A -
two holes were drilled at the requisite spacing using the EB35 link as a pattern. Next step was to file down the thread ends of two 4 BA brass screws until they were a tight push fit in the sockets on the rear of the 840A, it is best to put a nut on each screw and run it up close to the head so as to protect the thread left on the screw before filing begins.

- The two screws are now fastened to the paxolin spacer with double nuts and the heads of the screws are connected with a piece of thin (18 SWG) tinned wire.

- That is it ! You now have a good link connector, the tight fit of the screws and the natural springiness of the paxolin ensure a good contact.

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- High Subs; Rate.-

- Cannot please everybody can we ? One letter this week where the member complains that the £10 subs; figure is TOO HIGH !

- Now honestly just look at the costs to EUG, and Eddystone. Nothing is free these days, never was so !

- Paper costs for me to type it up and answer all mail, envelopes for me & for Eddystone to mail out the N/Ls, plus their horrific costs for photocopying plus paper. Then you have the postage costs which have just recently gone up. Only some members send stamps for replies so that Graeme, Jim, or myself have to pay return postage. Now there is no way that the £10 subs can cover all that lot, and the result is that EUG is subsidised by the Factory more and more as we keep subs the same and costs go up. We are indebted to Chris Pettitt for letting us keep the subs at this low level, so please do be a bit realistic and add up the costs before you complain about HIGH SUBS;

- It is very rare to get such a letter indeed, most EUGers do live in a real world and can figure it out for them selves, but there has to be one !!

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- Lightning Damage.-

- Oldies and Wrinklies like myself can recall the days when Dad would pull a knife switch to earth aerial wires and disconnect the apparatus completely when there was danger of a storm in the vicinity of the home QTH. I guess not many EUGers do this nowadays but then a recent experience for one may make you think again. Charles had safely operated his shack for many years and had experienced no previous problems, until this year.

- None of the equipment was in use at the time but Charles was in the shack having a quiet read away from the blare of the evening 'Soap'. He saw the outside flash through the window and simultaneously saw a blue spark flash from his outside aerial leadin where it bent around a corner of the window sill. The spark was all of 3 feet long and went directly to the unearthed test gear rack, it must have gone to earth through some of the gear which was plugged in. The usual smell of ozone filled the shack but Charles was unhurt.

- Going down stairs he found that almost everything in the house was fused and there was that same 'pong' of ozone. Of course HE was to blame and recriminations began immediately, biggest was that the end of the 'soap' serial had been missed.

- When things had calmed down it was found that the customer fuses in the domestic fuse box were blown, these were replaced and most appliances came back on, not unfortunately the Tv set ! Later checks showed that this was a write off and a new one had to be bought. When the storm was over a trip outside showed that the original 'hit' had been to the top of the Tv aerial pole, an aluminium tube, and here the tubing was seriously burnt and about 5 inches shorter. The HF aerial lead in to the shack is attached at the base of this tube where it is attached to the chimney stack so the strike had gone from the Tv aerial down the tube to the HF aerial and thence to

cont; - Lightning Strike.
the shack via the lead-in. Damage in the shack was only assessed later, much later when the domestic strife had been dissipated.

- The insulation at the bend of the lead-in was burned away, as was the copper conductor. The 940 connected to the lead-in was seemingly undamaged but a check on the BC221 showed that it had a burn mark on both the mains lead and inside the 13 amp mains plug. This appeared to be where the strike had gone to earth through the household mains supply. It was an expensive 'do' and the cost of a new Tv was painful on Charles pocket, the domestic 'fall-out' was painful to his ears !

- Maybe the oldies and wrinklies knew better than us - maybe we should once more be using those knife switches that disconnect equipment and aerial and directly earth the latter during storms.

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- The 961 Mk I & II.-

- Never heard of them ??? Then join the club, nor have I heard of them. And yet the two do appear on the latest find of a factory list of models. This means that we have to accept that they did exist ! Maybe some still do, somewhere !

- Any info or clues please to Jim or Graeme for onward transmission to ME.

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- MAIL FOR ME ! -

- PLEASE, nothing more to the Wakefield address for ME ! A letter to Jim MUrphy or to Graeme Wormald will soon reach me and you will get a rapid reply.

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- FM on the EB35.-

- Okay, so you will get something if you run this model with just an hf aerial connected to the aerial sockets at the back of the set. BUT, if you want to get anywhere decent FM reception then you need a suitable dipole connected to the co-ax socket by co-ax cable. No need to go to the extent of buying a professional FM aerial and putting it up on the roof. The power of the National stations, and most Local stations is sufficient for you to manage with a home-made, DIY dipole.

- Just get a length of two way flex as supplied for mains use on unearthed appliances, the flat oval type is ideal. Split it down so that you have two arms each about 70-75 cms long, use this as your dipole by fastening it to the wall behind the operating position. Lead the rest of the twin lead to the back of the EB35, fit a co-ax plug and plug it in, Voila ! you have your FM dipole & you can prepare to be surprised by the difference that it makes.

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- Solid State Detectors.-

- Just incidental to a conversation about the various types of detector to use in simple crystal sets comes this item of information. The slag that is left after the steel making process, or around coke gas plants, will make quite good detectors if you don't mind poking around for active bits. It seems that Jerry found this item of gen in a 1920s encyclopedia purchased at a book shop for a couple of 'quid'. He calls it the best read ever with a number of articles on operation of the telephone, wireless, dry and wet leclanche cells etc;

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- YES, Santa Does Exist !!! -

- A little early for Xmas but this is a real present for me ! Some kindly well meaning person has dumped a 720 amongst the sets in the 'museum' room at the new Factory QTH. Graeme, who fell over it, says that it is far from pristine state but at least we have one - at last. Looks as though it has been used for some years as a footrest by somebody.

- - - - -

- S.358X and a Dud Crystal.-

- The set had been in the attic for many years but a recent visit to the NEC Classic Radio Show was sufficient to prompt a re-awakening of Colin's interest in radio. Getting it down and sorting out all the bits was the task of a whole weekend, by the time that Rx, coils, psu, and speaker box had been collected whilst all other unconnected junk was returned to the limbo whence it came, well it was a case of leave off until the following weekend.

- Thought was given to some kind of an aerial and it was decided to put a wire out from the box room window across to a branch on a neighbours tree, permissin was easily gained in exchange for a promise to hear some of the results when the set was working.

- By the time that the weekend came along Colin had made re-acquaintance with the old RAF manual and had sketched out what he thought might be required in the way of interconnections. This sketch was appreciated when the condition of the wiring of the set was checked out. The flexible wire from the set to the psu and from the set to the speaker had to be renewed as the rubber was crumbling at first touch. It seemed tantamount to treason to replace the rubber covered wire with modern plastic covered mains lead, but this was done. By this time, with the aerial already erected it was time to call it a day, the 'power-on' was to be scheduled for Sunday morning. All this time little bits were resurfacing in Colin's mind from those long ago days in the 40s, before the family arrived.

- You all know the 358 series, weighs a ton with all its accessories and almost needs a garage to keep it all in ? Well now it was set up on a table in the box room, wired up and ready for the juice to be switched on.

- Well when the power was applied there was the usual valve type wait whilst the heaters could be observed to glow faintly, and then surprisingly there was the hiss and a spin of the tuning knob showed a few stations, despite the tears in the paper cone of the speaker.

- Correct adjustment of the controls showed that the set was working quite well and following a few minutes of practice it was found that the 358X was in very good condition despite its age and the time stored. Only four of the coil packs were there, although memory said that there had been more originally. With the MW coil in use a large number of stations could be heard, local, national & a few continentals, after dark the vast number of continentals that could be resolved was amazing. MW had never been so crowded in the 1940s !

- A check with the other coil packs showed that all were working okay and so a bit more experiment meant the use of the BFO to resolve some of the SSB stuff, no luck no beat note !!! A close look showed that the BFO bottle was barely in its socket and not lit, pushing it fully home soon brought the BFO into operation. Further checks showed that the crystal filter was inoperative, this was more serious and required digging into the guts of the set. After powering down a quick clean up of the top chassis with the Hoover made things easier to work on. Long forgotten circuit reading skills were resurrected and the partly atrophied memory cells began to recollect that crystals stopped being 'active' but could be brought back to life by cleaning in Thawpit. This was carbon Tetrachloride and not available - a known cancerigene ! A bottle of medical alcohol used by the youngest daughter for her feet before ballet lessons was liberated and with memories of cleaning those pesky FT243 crystals in the RAF the alcohol was used on the 358X crystal. Sounds easy but it was NOT so, still a degree of deftness was still in Colin's fingers and he soon had the set warming up again, alcohol fumes threatening to knock him out ! The set worked fine, crystal filter as well and so it was boxed up and all was rearranged in a more comfortable position for operating 'friendliness'. The evening was spent re-acquainting his neighbour with some of the stations that both recalled from many years ago. As a result the aerial became a permanent feature.

- - - - -

- Eddystone Parts and Component Suppliers.-

- A first careful study of the newly acquired 720 Parts List does show an interesting facet of Eddystone production techniques in so far as no less than 36 other companies are listed as component/parts suppliers FOR THAT ONE MODEL.

- Whilst a number of them are, or were then, household names to us enthusiasts a number of them are new.

- Names such as Celestion (for the loudspeaker) and McMurdo (for the valve holders) are well known. Less well known maybe are Benjamin (for the dial-lamp holder) and Mapplebeck (for the coilbox castings). How about A.A.V.F for the coil formers, ever heard of them ? What about Cellgrave for the Fingerplate , now there is an interesting name, wonder if they still exist and whether they can do us copies ??? How about it somebody, worth investigating maybe.

- How about condenser manufacturers ? Yes manufacturers plural ! There are no less than 6 of them, W & R for the variable condenser and then we get BICC, TCC, Hunt, Dubilier, and LEMCO for the fixed condensers. Trimmers come from another maker Ashleys.

- Resistors do better as we get from the parts list just three of them, Erie, Morgan, and N.S.F.

- Oh yes let us not forget the one name that is of paramount interest to us EUGers, Strattons did figure them selves amongst the parts suppliers but only for minor hardware items.

- The dialbulbs came from GEC, the valves from Mullard, the vibrator from Wright & Weaire, the terminal strips came from Tufnol, the knobs from Evans, and those chrome handles we now find were made by a company called Smith-Wallis.

- The parts list makes interesting reading in itself and it is certainly a fact that one can begin to visualise more fully the mysterious 720 after a good study of this list. Roll on the day we get the schematic. (I have written off for a copy !)

- - - - -

- DISCONES - A NEW IDEA ??? -

- Some of these firms who advertise discones for use with their super-dooper scanners try to give the impression that these aerials are as new on the market as the scanners are. NO WAY is this true. As can be seen in the page extracted from an Eddystone Catalogue the Company were producing these and other aerials for commercial users way back in the 70s.

- When the Bath Tub was being vacated a number of these Discones which were mounted on the buildings were 'liberated' by one industrious EUGer who was in at the end ! I have seen a number of the Cat; No; 994 type in use at airfields around the UK. I remember seeing one of the HF model Cat; No; 993 at a certain establishment just on the outskirts of Leighton Buzzard in - I think - 1981.

- The Cat; No: 1531 dipole was much used by the emergency services and whilst they are no longer in use, as the services have vacated these bands, the dipoles can still be seen on towers throughout the UK.

- Just goes to show that there is nothing new under the sun !

- - - - -

- The Everyman Shortwaver.-

- Just one more of those many early models that you can find described in those Eddystone Short Wave Manuals. This set was a 4 valver with TRF and with Reaction to sharpen up selectivity, constructed on the 'breadboard' system as was common in the -30s this set could still put up a good showing on the bands today. It was advertised as 'giving world-wide coverage' - if it could do so in those days of fairly low power transmitters then it should do okay today. Go on, give yourself a treat, buy the ESWMs, 1 - 6.

- - - -

Featured in Nos 3 & 4. See back page - Graeme.

- Aerials for LF (or even MF). -

- No you cannot use those scanner or CB types for successful MF or LF reception. Oh sure you will hear something but NOT A LOT. I remember one EUGer who was happy with the results he got on short wave and medium wave with nothing more than about 10 feet of wire hanging down the back of his 670C. When he did get in touch with me as to improving his aerial 'system' I had to point out to him that the short bit of wire he had was worse than useless with the 670C.

- This model, like many others made by Eddystone, has a low impedance input suited to 75 ohms dipoles on ranges 1 - 4, and a 400 ohms input impedance on ranges 5 & 6, this would match pretty well to a wide-spaced folded dipole. Of course both 75 and 400 could be matched to a suitable longer wire via a good ATU. The 10 feet bit of wire would only be resonant on about a frequency of 25 mcs as a $\frac{1}{4}$ wave wire.

- My suggestion after being told about the EUGers long garden, was that he run a single length of wire out from the eaves just above his 1st floor shack. The far end of this wire was to be fastened to one of the branches of a large apple tree at the bottom of the garden, in the event he had some 130 feet of aerial wire now in the form of a sloping random wire. Despite the mismatch that still existed on short waves the improvement in performance was little short of magical, on medium waves where the match was better he was amazed at the improvement. Buying a cheap ATU even further improved his reception.

- Now, for MF & LF what we need is as much wire as possible, as high up as possible, since the length of a dipole would be prohibitive we are best going for a Random wire type, commonly called a long-wire. Even so most will not be able to get up anywhere near enough to make a $\frac{1}{2}$ wave at MF or LF so the aerial will not be resonant, and matching via an ATU will be beneficial. If you can get up anything over 80 feet or so then you are on your way, 150 feet will be even better. Should you be at all adventurous then go for a multiple wire aerial, several separate conductors run in parallel and spaced about 8 inches apart, connected at the ends, then fed to your set will enhance your pickup.

- Finally, there is only one way to find out - experiment !

- - - - -

- One EUGers LF Aerial System.-

- Ian has always enjoyed trying out different configurations of 'skywires' and his neighbours are used to the many different aerials that adorn his QTH.

- With a large garden front and rear he has the space to put up several aerials at one time, enabling comparisons to be made on the air. As the main interest is in medium wave Dx he is looking for plenty of length and as much height as possible. Over the years he has evolved what appears to be a very effective MF aerial, the best of some 20 odd systems he has tried out so far. This is not to say that he is complacent !

- At present he has a 30 foot pole at the front end of his front garden, & a matching (almost) 30 foot pole at the extreme bottom end of the back garden. This gives Ian a total of some 100 feet length of aerial between poles, allowing for the support wires and insulators. As both ends are remote from the house and the small box room where his receivers are the problem of end feed was insurmountable, Ian decided that he would use a centre feed system. He had a superfluity of green/yellow mains earth wire with plastic coating and so the idea was to produce a three conductor centre fed, i.e. a 'T' type of aerial.

- The matter of end spacers was solved by using plastic pipe with a wood dowel down the centre for stiffening. Three were used, at centre and at each end. The 3 conductors were measured off very carefully and then fed through holes at the spacers and soldered together at each end, they were secured by nothing more than a single knot tied as the wire passed through the spacer.

- Feed from the centre was by connecting together all three conductors to a single down feed wire, this went directly to a feedthrough tube in the

cont; EUGers Aerial system.
wooden window frame of the bedroom used as a radio room. This tube is a piece of fibre glass tubing of about ½" diameter, however it would be acceptable if a thin plastic pipe is substituted.

- No checks on resonance of the whole aerial and earth system have been made but reception of the various LF time signal stations and the Decca Navigator signals is very strong so it must be working on LF.

- It has also been used with success on all bands that Ian listens on, up to about 25 Mc/s with good results, the wrinklies always said get plenty of wire high up and it seems to work !

- - - - -

- Build a Cheap ATU for less than a Fiver.-

- Whilst at a recent Rally Sam was eyeing up the display of a commercial ATU that was being retailed for some £30 or more. Sold as either a kit or - if one wanted, ready built this ATU was opened up for display.

- Sam being a canny type who likes to keep his cash in his pocket, whenever possible, had a good shufti at the parts that comprised the said ATU. It was clear that utilising the bits and pieces stalls at the rally one could easily obtain the necessary items for far less than the above mentioned amount of his hard earned lucre.

- A few notes on the back of an envelope, in time honoured DIY fashion, and Sam came up with the following list of bits needed.

- 1 x variable condenser of about 0.0005 microfarad. Bought for £2.50.
- 1 x rotary switch 5 way. He got a 6 way 2 pole 2nd hand for 80p.
- 1 x toggle switch, 2 pole 2 way. This cost 40p.
- 4 x screw terminals. At 30p each these cost £1.20.
- 1 x coil former and wire, out of junk at home, NIL.
- 1 x box to hold the ATU, made from scrap plywood, NIL.

- This meant he had spent £4.90 for the bits needed and he could now go home and start construction. The opened out ATU on display had given him enough to sketch a diagram of the circuit, again on the back of an envelope (his electric bill as it happened).

- The box dimensions were more or less decided by the size of the bits of plywood that he had at home so it ended up at about 20 x 12 x 8 centimetres. The pieces were cut and glued together, leaving off the top of the box for ease of assembly. Holes in the front panel side consisted of one in the centre for the toggle switch, this enabled the unit to be switched in or out of circuit for instant comparisons os signal strength to be made. On either side of this and at 5 cms in from the ends were two holes for the VC and the rotary switch, a tip here make sure that they are in such a position that the components do not foul the box sides or top/bottom.

- The rotary switch had wires soldered to the 5 contacts and the wiper and it was then screwed into its fixing hole. The VC was fixed to the base plate of the box by several small wood screws so that its spindle protruded through the hole.

- Next came the coil and former. Well here a left over piece of 5 mms plastic pipewas drilled as a former, holes at each end and 3 others spaced along its length. Wire was recovered from an old WW II choke that was available, it was wound as per the diagram onto the former, leaving the twisted ends for taps so that they could be tinned and used to solder the wires from the rotary switch.

- Four holes, two at each end of the back panel of the box were now made, and the screw terminals were fitted in them, but not tightened up until the connections are made.

- This was all the first stage of construction and a pictorial diagram of the ATU as it was, was made to complement the schematic. With the soldering iron at the ready the wires were attached to the coil and former making them as short as possible compatible with the size of the box. As each wire was soldered into place it was remarked of on the schematic with a black pen, as opposed to the red that had been used to draw the circuit.

progressing logically all the wires were terminated and a very thorough visual check was made, rechecking each wire in turn until it was certain that no boobs had occured - yes one boob was made when connecting the toggle switch but it was found and corrected. Two junk knobs were fitted for switch and VC.

- Plans were now made to test the ATU out before any kind of 'finish' was applied to the box, before even the top plate was glued on !

- The station receiver is an 830/9 but a standby 740 was chosen so as not to disarrange the mass of wiring behind the 830 - it goes to a speaker, and a morse decoder unit !

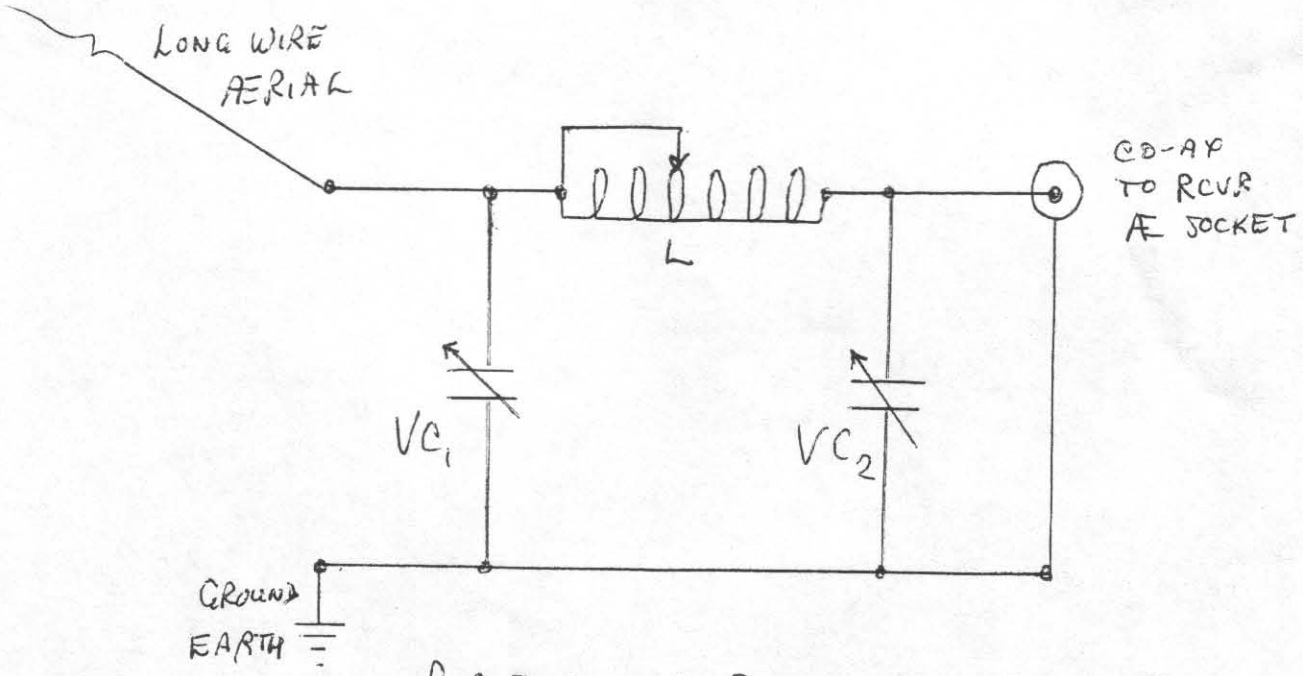
- The first test was with the 740 connected to the terminals at the right hand end of the circuit, away from the VC. The aerial used was a 28 foot random wire. The station earth is a copper rod in the garden so this was connected to the ATU earth.

- A table was drawn up with frequencies marked at 1 Mcs intervals, except on MW where 500 Kc/s was the starting point. The idea was to tune to that frequency - or close to it - and using the new ATU to try and peak the signal or noise level as the case was. The points would be marked on a paper scale made for the front of the ATU, with a scale on both VC and on the rotary switch.

- As it happened at 500 Kc/s there was no peak at all and switching in and out showed that the ATU degraded the signal & later some extra turns were added to the coil to correct this.

- From 1 Mc/s up to 15 Mc/s a definite improvement was found when the rotary switch was used in conjunction with the VC, above this frequency there was no apparent change with the unit in or out.

- Next step was to connect the main aerial a 120 foot wire. Here there was a slight boost at 500 Kc/s but the ATU lost effectiveness above 12 Mc/s. Despite these facts the construction was rated a success and for less than a Fiver Sam now had an ATU. The box was closed up and painted matt black to match the 740 receiver , it now rests permanently on top of the 740 and is in constant use .



BASIC CIRCUIT MINUS SWITCHING DETAILS.

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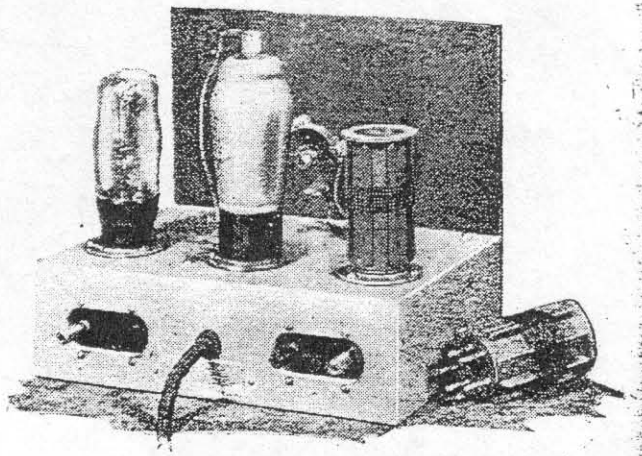
New Apparatus Reviewed

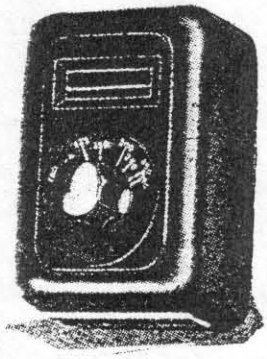
Recent Products of the Manufacturers



Eddystone All-World-Two receiver assembled from the kit of parts.

GLIMM VOLTMETER

THIS is quite a novel type of voltmeter, as it does not include any moving parts, voltage being indicated by a glow in a small neon tube. It can be used on either AC or DC supplies, and will answer as an indicator for direct or alternating current by the position of the glow about the electrodes. On DC the glow is confined to one electrode only, whereas on AC it is equally distributed about both.



Neon-type voltmeter for AC and DC measurements.

The meter is provided with a knob and scale calibrated from 100 to 440 volts. Having joined the instrument across the points where a measurement is required, the knob is adjusted so that a faint glow just appears between the two electrodes. The voltage is then read off the scale. It is surprisingly accurate for a neon device, and its measurements agree very well with those made with other instruments.

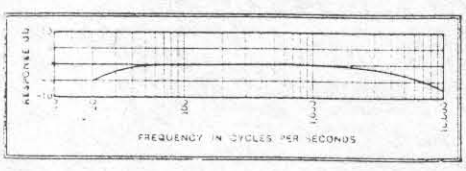
Its most useful feature is that current consumption is practically nil; for example, at 200 volts it passes less than 0.05 mA.

It is obtainable from Eugen J. Forbat, 28-29, Southampton Street, Strand, London, W.C.2, and the price is 27s. 6d.

L.T.P. OUTPUT TRANSFORMER

THE transformer illustrated is one of the new range now being made by London Transformer Products, Ltd., L.T.P. Works, Cobbold Road, Willesden, London, N.W.10.

This particular model provides two ratios, viz., 22½ to 1 and 15 to 1, and is designed



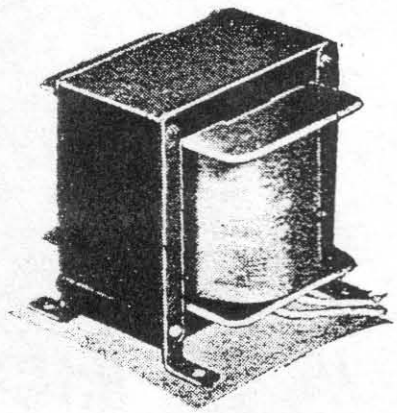
Response curve of the L.T.P. two-ratio output transformer.

to carry DC currents up to 60 mA., and is suitable for use with power valves giving up to about 10 watts AC output.

The windings are sectionalised to keep the leakage inductance small, and to render it suitable for tropical use it is thoroughly impregnated.

Our measurements give the primary inductance as 35 henrys without DC flowing, 29 henrys with 40 mA., 24 with 60 mA., and 20 henrys with 90 mA. The resistance of the primary is 270 ohms.

The response characteristic was taken following a valve requiring a load of 4,000 ohms and the 15 to 1 ratio was employed with a suitable resistance joined across the secondary. The curve obtained with this combination is given in the accompanying graph. It is quite satisfactory, as the response is virtually constant over the major part of the audible scale.



Manufacturers' type two-ratio output transformer made by London Transformer Products.

As a skeleton, or manufacturers' type, the price is 24s. 6d., but the transformer can be obtained in a more attractively finished form with shrouded windings and terminals for an additional 4s.

EDDYSTONE ALL-WORLD-TWO RECEIVER

THIS new Eddystone receiver is a compact two-valve model designed expressly for short-wave reception. It is supplied as a kit of parts, but the assembly is perfectly straightforward, the layout being very well planned so that all components are readily accessible.

An HF pentode is used for the detector, and this is resistance-capacity coupled to a small power output valve, for, as a rule, headphones only will be used with this set. Either a triode or a pentode can be used in the output position, and a choice of valves is given in the instructional booklet. These have been chosen with a view to economy in operation, and by adopting the maker's recommendations the total HT consumption can be kept within 5 mA. with a 120-volt battery.

Reaction is obtained by capacity-feedback through a reaction coil, but control of detector oscillation is effected by varying the screen voltage.

This arrangement is very satisfactory in practice, for the smoothness of the regeneration is one of the outstanding features of this receiver.

The Eddystone band-spread tuning system is employed, the small band-spread condenser, which has about 20 m-mfds capacity, being mounted in the centre and fitted with a neatly engraved scale, while the "tank" unit is located on the left and below the chassis.

The drive reduction ratio of the band-spread unit is about 8½ to 1, but this is quite slow enough in view of its small capacity.

Standard six-pin plug-in coils are used, and with the Eddystone Type 6LB size the waverange covered was found to be 15.75 to 29.6 metres. At the bottom end of this band the band-spread condenser gave a coverage of two metres, whilst at the top it was reduced to just over one metre.

The band-spread system is a great help, for, despite the small capacity of this condenser, some care is needed in tuning, especially at the lower end of the Type 6LB coil.

The next size coil, Type 6Y, overlapped the other one amply sufficient to take care of variation in stray capacities in different sets, its range being 27.3 metres to 54 metres.

The sensitivity of this set is exceptionally good, so also is the selectivity, for it is possible to receive DJN Zeesen, 31.45 metres, clear of its companion transmitter DJA on 31.38 metres, with one an R8 signal, and yet leave a clear space between them. For a simple detector-LF set this is very satisfactory.

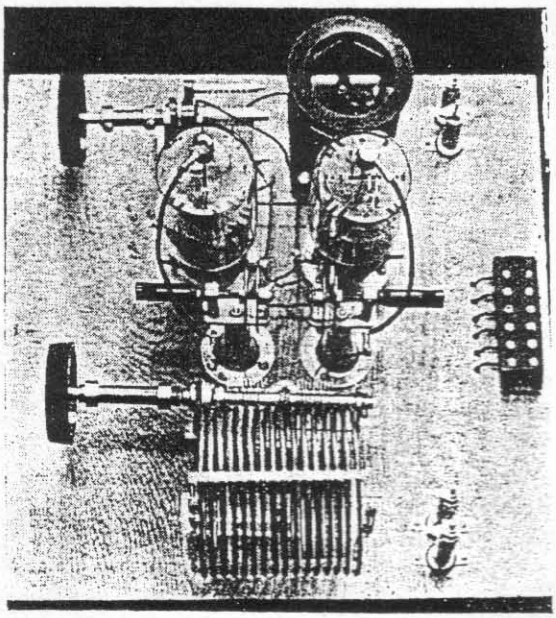
European and American short-wave stations were received well during the time the set was on test, though conditions must be favourable for good reception of the latter.

To sum up, the All-World-Two is a soundly designed and very efficient detector-LF set, and as it is so easy to operate it is ideal for the beginner, yet it forms a valuable stand-by for the more experienced short-wave experimenter.

The price of the complete kit is £3 7s. 6d., and the valves cost 20s. 6d. extra. The makers are Stratton & Co., Ltd., Bromsgrove Street, Birmingham, 5.

100 WATTS CW

continued from page 31



Plan view. Two sets of Eddystone insulating pillars carry the link couplings to grid and output tank and power is brought in with a Hamrad 6-way connecting block.

smaller components, excepting the RF choke, are mounted beneath the baseboard in the run of the supply wiring, the jacks being arranged anywhere convenient for the meter(s).

● Operation

Adjust to a bias value to suit the HT voltage being used (see table), switch on the filaments, and apply drive. On tuning the grid side to resonance, a grid meter reading should be obtained and then the tank can be resonated and the amplifier neutralised. On bringing the plate condenser to resonance with the neutralisation "out," a violent dip will be observed; the two neutralising condensers should be adjusted till the grid meter reading remains quite steady while the plate side is swung through resonance. Apply HT, and tune the tank condenser for minimum plate current—the amplifier will now be ready for loading.

There are, however, one or two points to note. For full RF output, the grid drive must be near the figures given when the amplifier is on load. When using plate voltages of 600 and up to the maximum, do not run the rig unloaded, i.e., keep the plate voltage down under no-load conditions, otherwise peak RF voltages of a high value may develop and cause flash-over. Similarly, do not allow the drive to run too high when there is no load on, as this only causes the grids to be over-heated and may in turn lead to the valves being damaged.

For full power RF output, an exciter unit consisting of an APP4g driving an OS-12/501 will provide ample excitation to give the grid current readings specified.

EDDYSTONE RECEIVERS AND YEAR OF MANUFACTURE.

Copied from poor quality list obtained from the Bath-Tub, 1996.

MODEL.		YEAR.
HOMELANDER 4 valve.		pre 1936.
All World 4.		1936.
All World 6.	+	1937.
All World 8.		1938.
358X/B34.	*	1941.
504.		1946.
640.		1947-49.
659/670.		1948-54.
670A.		1954-62.
670C.		1962-64.
680X.		1951-61.
680/2.	++	1947-52.
720.		1950 only.
730.		1954 only.
730/1A.		1955-57.
730/4.	**	1957-61.
740.		1950-54.
750.		1950-58.
770U.		1955/63.
770U MkII.		1964-69.
770S.		1962-65.
770R.		1953-63.
770R MkII.		1963-69.
820./HR20.	+++	1955-58.

MODEL.	YEAR.	
830.	1963-69.	***
840.	1953-54.	
840A.	1955-61.	
840C.	1961-68.	
850.	1961-69.	
870.	1956-59.	
870A.	1960-64.	
880.	1959-61.	
880/2.	1961-69.	++++
881/2.	1955-61.	====
888.	1956-61.	==
889.	1954-56.	===
890.	1956-57.	
902.	1965-67.	=
902 MkII.	1967-72.	
909.	1959-60.	
909A/2.	1967 only.	
910/1.	1961-62.	
924.	1965 -.	"
929.	1966 only.	=
930.	1958-62.	
940.	1962-70.	
949.	1966 only.	""
960.	1961-63.	
990R.	1968.	

\+ This name also used for the S.710 in 1950.

* Does this include the earlier 358 ?

++ Does this include the 680 ? A different set.

** No mention of the other suffixes, up to /10 are on record.

+++ HR20 is a Marconi model type, hence a badged 820.

*** Must include all suffixes up to /12 are known.

++++ Must include Marconi badged /3 & /4 which was a GCHQ special.

= An unknown model to EUG.

== Must include 888A version, I would guess.

=== MIMCO feeder unit.

==== MIMCO Cabin tuner.

" PSU for the EB/EC series.

"" Electronic Keying Unit.

MODEL.	YEAR.
990S.	1966-75.
EC10 MkI.	1963-69.
EC10 MkII.	1969-76.
EB35 MkI.	1965-69.
EB35 MkII.	1969-70.
EA12.	1964-69.
EM34.	1967 only. //
EP14/15/20.	1965-70.
EB36.	1966-69.
958 series.	1969-.
961 MkI.	1970-72. ///
964.	1970-.
EB37.	1971-76.
1830.	1971-74.
1000.	1971-74.
964/7.	1972-74.
958/7.	1972 -.
1001.	1972 -.
1002.	1972 -.
1004.	1972 -.
961 MkII.	1973 -. ///
1061A & B.	1975 -.
1990R.	1974/5 -.
31A.	1972 -.
1837.	end 1976 -.
1838.	end 1976 -.
EC10A2.	1976 -.

MODEL.	YEAR.	
B6038E.	1981 -.	/
B&W Mon;	1978.	/

/ Computer Monitor badged Marconi.

// To a Marconi Spec; but some badged Eddystone. (3837A-Elettra).

/// An unknown model to EUG.

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* RED? BLACK? or BLUE? *

- I just don't know Dave ! Awful to have to admit this but I shall have to leave it to EUGers out there to come up with an answer.

- The question is whether or not the colour of the enamelled LIGHTHOUSE badges on the many Eddystone models has any esoteric meaning ?

- If anybody has made any study of this subject then please can they let us all know, Dave claims to be losing sleep over it !

- - - - -

- MWN -

- To the likes of me these three letters mean only one thing, this was the call sign used by the CONSOL navigational system station that was located in Bushmills, Northern Ireland. This station formerly operated on 1140 metres in the Long Wave Band. Used together with LEC which was a similar station located in Stavanger, Norway and operating on 940 metres these CONSOL stations enabled accurate (for the 50s) position fixes to be made by ships at sea.

- Well now we have MWN meaning the MEDIUM WAVE NEWS group which is a dedicated group of listeners whose interest is mainly the reception and logging of Medium and Long Wave broadcast stations.

- The Editor of this new MWN is Steve Whitt, of Hunts, Kiln Lane, Buxhall, Suffolk, IP14 3DU.

- Steve tells us that he has arranged a mention for EUG on the Internet, so from us all - Thanks a bunch Steve.

- - - - -

- Eddystone Transmitters ? -

- A letter from Bob Mersh mentions that he has acquired a 940, formerly the property of the late G8EWO and that he desires to restore it to its former pristine condition.

- Bob also mentions a couple of mystery Eddystone transmitters that he recalls seeing at the former Interpol transmitting station in Hayes. He mentions the use of both Eddystone and Racal (!)professional receivers and these two large Eddystone transmitters ???

- Now Bob wondered whether these might have been the S. 215 VHF types but that really is a No-No as they were in use for Interpol comms between Hayes and Paris and Lyons. The range is wrong for VHF and the dating is also way out for the S. 215 set I am afraid !

- However the conundrum remains as to what model they really were ? It was not unknown for Eddystone to do one-off, even two-off specials, even to use Marconi models badged as Eddystone, so we must now try to get the gen on these mystery sets. Any help out there ???

- - - - -

- My Age is Showing ? YES ! -

- It must be, thankyou to the anonymous EUGer in Scotland who has sent me a list of things that were happening in 1933, it makes very interesting reading and a few of the items that happened the year I was born are just a little surprising, to say the least.

- For instance, did you realise that the first main-line electrification on the railways of the UK was completed and operational that year ?

- The first ever Educational Tv Station was in operation that same year.

- Polythene was first put on the market that year !!!

- The first Drive-In Cinema was also operating in the U.S of A.

- The first Police Pocket wireless sets were issued to Brighton bobbies in September of '33. Made by Plessey they weighed in at 3½ lbs each (some pockets !).

- London to Singapore air route was opened in December by Imperial Airways in conjunction with Indian Transcontinental Airways and using Marconi Wireless Telegraph equipment.

- The first ever Military model Walky-Talky was demonstrated, bet you did more staggering than walking with this one !!!

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- Germanium Diodes, again.-

- Terry says that the Cirkit company can still supply two types, the OA90 is one that will substitute for the GEX types as used in the various Eddystone models, i.e. the 770 sets.

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- Longwires on VHF ??? -

- A letter from a USA correspondent mentions the fact that longwire aerials CAN be used effectively on VHF, the one proviso is that they be matched into the receiver properly.

- It seems that he has used such wire aerials up to 18 x ½ waves long on both the 4 metre and 2 metre bands with great success. Gerry does mention that they become highly directive at this length giving results quite similar to the Beverage aerials that are so well known on the lower frequency bands.

- It seems that if you want a good, highly directive aerial to fire at one particular area then this might be the answer. A fair amount of 'realestate' out in the sticks is necessary or you might end up aiming your aerial at some nearby source of QRM !

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Right, Ted, this is a sort of letter-within-a-letter. Now I find it very difficult to make comments to your list, so I choose the easy way out and present what I've found in Wireless World and leave it to you to use what you find of interest here.

25/9-29. There is mentioned an improved three-valve SW-receiver.
" A new four-valve receiver is the Scientific four, this can be had in a teak case.
" A new three-valve SW-receiver is introduced, metal case.
11/6-30. The scientific Portable Three.
17/9-30. The All Wave Four
" A four-valve kit set could be the Kilodyne Four
22/7-31. The Scientific Two.
23/9-31. The Kilodyne four
" The All Wave Four AC (separate power)
9/3-32. 1-valve superhet SW-converter.
27/4-32. New version of the All Wave Four
20/4-34. New version of the Kilodyne Four
" The Kilodyne Four AC
24/8-34. The Super Six
" The Sphinx
" The All Wave Four with crossfeeder aerial connection
9/8-35. The Quadradyne
" A 5-meter superhet is announced
16/8-35. An overseas model is probably The Overseas Four
" A new six-valve superhet 13.5-550 metres
23/8-35. A six-valve superhet 50-62 MHz
12/6-36. The All World Two
28/8-36. An eight valve SW-receiver must be the All World Eight
30/10-36. The Homelander
" The All World Four
" A four band crystal controlled transmitter
" A combined receiver and transmitter for the 5-meter band
" A compact two-valve transreceiver
3/9-37. The Eddystone ERA7

*** Right now, the above is a list of the info sent to EUG by Tor in Norway as extracted from his collection of old Wireless World mags; Some are dupes of what I have already but thanks Tor ! As usual you get me started on the 'unknowns' that you dig up. I shall have to start digging again. The Sci-2 article with schematic and picture is going

to feature in a Newsletter soon so all can share in your 'archive-delving' amongst the old Mags. I am also getting a number of pre WW II SWM mags sent on by Graeme so I shall have more items from them to include in the N/Ls to come - as usual the problem is that the quantity of stuff available far exceeds the space available ! (wonder if I shall still be saying that in the year 2033 when I reach the youngish age of 100 ?)

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- CLEOPATRA and EDDYSTONE -

- Nobody can deny that both the above are impressive, I don't know offhand which is the tallest the needle or the lighthouse. Because that is what I am talking about here.

- It seems that when the massive Cleopatras Needle had finally been towed back to the UK from Egypt and the site was being prepared for its installation as a monument the idea was put forward that a time-capsule should be buried at the foot of the foundations, this all happened in the year 1878.

- Guess what one item included in the time-capsule was ? Go on have a guess - It happened to be a packet of Jarrett & Rainsford Limited Ladies High Quality Hair Pins ! So what, who was J & R ?

- Jarrett & Rainsford was the original company from which sprouted none other than our Strattons the forerunner of Eddystone Radio Ltd.

- Just one more snippet of Company History dredged up for your interest and pleasure from the files of EUG.

- - - - -

- The Peregrinations of a Peripatetic 840A.-

- Honest they got to go everywhere that man can go ! The letter that I had from EUGer Christopher Wood GD6 TWF, in the I.O.M of course, mentions that he has the 840A that belonged to his father. The set was bought in 1956 and is only on loan to Chris but he mentions that the set was bought to be taken out to the then Persia (now Iran) by his Dad who worked there for BP. The idea being that it would enable him to QAP the World Service and keep in touch with home that way. It also enabled him to listen in to the SW operations channels of the BP workers.

- Chris still has the original Guarantee card and manual plus the listeners Guide to Better Reception that came with all Eddystone Receivers.

- Besides Persia the 840A has also seen service in England, Scotland, Bahrain, Abu Dhabi, Singapore, Netherlands, Andorra, India, Dutch Guyana, and now the I.O.M. Not a bad list that for a humble 840A. Chris is hoping to have the 840A back in regular use soon.

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- Some Items from the Mail.-

- Long time member Jack Read is experimenting with simple Radio Astronomy using his newly acquired 770R MkII and a Yagi aerial. He has been seen by the neighbours walking about the back garden waving the aforesaid aerial at the Sun and Moon, probably muttering some incantations ! Great interest on the part of Jack's neighbours at his antics. Can you imagine the comments made behind those lace curtains ? "There you are, he has flipped at last" - Or maybe, "Hey call the cops he must be a spy".
- Whatever, Jack intends to persevere and I have suggested the use of an ink recorder on the 770R output, plus maybe the use of a fixed array of several dipoles and even the use of an aerial pre-amp. We may hear more from Jack in a later issue - if the neighbours leave him alone.

- - - -

- Those members in West Yorks; who have mentioned to me the problem of an image signal from the Talk Radio transmissions from Moorside Edge coming up on the Long wave of their sets at about 189 Kc/s ? Well Graeme informs me that the station is just south of Huddersfield and has an output of some 400 Kilowatts so it is only to be expected. The signal may be bypassing the aerial input of your set and getting into the mixer stage direct throughcontrol spindles or even the vent slots of the case !

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- Graham Ridgeway has bought a very nice, clean, working 640 and speaker, plus some 10 years of SWMs all for £25 ! So those bargains do still exist if you look at the ads.

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- Several letters received here complaining about the mail, don't we all these days ? If you have written and not had a reply from myself or from Graeme then try again. I DO know that some has gone 'walkies' since the mail disputes began, some is turning up late with peculiar postmarks, but to be certain try again, via Jim or Graeme.

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- From one of the Factory 'bods' comes the information that the Eddystone Active aerial was manufactured 'outside' by Barnett & Longmore Ltd, but that Keith Longmore had oreviously been an Eddystone employee in the Receiver Development section up until the early 70s, when he started his own business.

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- Recent communications have mentioned the possible modern replacements for those Germanium diodes, several members write in to say that Cirkit & RS both sell versions of the OA series that are compatible with those GEXs and okay for use in the 770 series.

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- Chris Wood of the I.O.M, callsign GD6 TWF, mentions that he is a member of the Isle of Man Amateur Radio Society and that he has 'lifted' items from our N/L for use in their journal QSP. Fine, go ahead Chris, anytime you wish. EUG is happy to allow others to copy items from the N/L and if you want info on Eddystone Radio ask me, or Jim, or Graeme for a copy of the History of the Company, no charge !

- - - - -

- YES, we have it, from two sources, Tor in Norway and Graeme in Bewdley, we now have the circuit and a picture of the SCIENTIFIC 2 and so it will be a FEATURED MODEL in a future issue - wait for it !!!

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* ENDIT * ENDIT * ENDIT *

- That is it again, time for me to start on the NEXT issue. Hope that this one gets to you on time.
- Please do note that I shall no longer be at the Wakefield address after you read this N/L so all mail via Jim Murphy or Graeme Wormald, and not via the Factory please.
- Some late subs still coming in, a trickle each day says Graeme and this tardy paying does complicate matters for Eddystone and EUG.
- The item in this issue by Graeme, re his 'Twin' is an example of the ideal presentation that we would like from YOU for the N/L, so come on let us have them. If you cannot get them typed up then I shall do it for you. 73, Ted.

- - - - -

- FREE EUGers ADVERTS.-

- WANTED, cabinet to fit EC958/12 receiver, this is the version with the ISB unit attached on top. Please contact Bill Gibson, 180 Castlemilk Rd; Glasgow, G44 4NS, thankyou.

- FOR SALE, Eddystone model 1837/1, this is the Marconi PACIFIC model. In very good condition with manual, speaker, phones, etc; - £270 cash. It can be seen at Preston or Newbury by arrangement. Ring Andrew on 01772-787209 for further details.

- WANTED, Eddystone VHF/UHV transistorized models: 990R & 990U, model 1990R/2 and also models 1995/1 or /2. Also wanted cabinet/enclosure for EC958/12 (front panel 7" high). Please call David on 01788 574 099 (Rugby)

- WANTED, Eddystone Receiver Type 1650, any version considered; must be in tip-top condition. Call Bill on 0121-308-4526 (Sutton Coldfield)

- WANTED, Eddystone 730 and 940 in very good condition, by EA4JL; please call my British contact Terry Edwards on 0171 624 7174 (London). Excellent price offered.

- WANTED, Eddystone model 888A; Bug Key; Edometer.
For 770R - plastic contact holders used in turret.
For 880/2 - desktop case.
For 990R - crystal calibrator, narrow filter,
RF deck screening Cover.
For 1570 - both telescopic aerials, outer case,
RF deck screening cover.
For Eddystone Modulation Meter - telescopic aerial.
Plessey SL600 I.C.s to complete transceiver project.
Narrow Filter for Drake R4C Receiver.
Any old books relating to Amateur Radio and Wireless.
ALSO WANTED - Collins 75A4; 75S3C; KWM2A; Japan Radio NRD93.
WILL EXCHANGE Eddystone 880/2 in GWO for any of the above sets.
FOR SALE - Eddystone 730/4.
Contact Simon G8POO re all the above 01434-633913 (N'umberland)

E.U.G. HAMS' NET ON 80m.

REPORT ON PROPOSALS MADE IN NEWSLETTER No 38

Members will recall that in the August Newsletter EUG-member Anthony Richards, GW4RYK, proposed that a members' NET could take place on the 80 metre band (3.5-3.8 Mc/s). He suggested that the first Sunday of each month would be a suitable day. Several Class-A licensed members have said they will take a listen and join in if they hear anything!

After a chat with Graeme, G3GGL, Antony has suggested the convenient time of 10.00 local time *(which in winter is also GMT/UTC)*, on the revised frequency of 3790 Kc/s, which Anthony reckons is a clearer part of the band. The first schedule will be on Sunday, 3rd November, then on 1st December, and the New Year will be welcomed in for EUG on 5th January 1997. Transmission will be LSB fone.

Out of about 300 members of EUG just over half are SWL's, a quarter are Class B Hams (VHF only) leaving slightly less than a quarter, about 60, with Class A (all band) licences.

When we've got that going Graeme wants to try out some SPAM* transmission. He's just acquired a 1958 'K.W. VANGUARD' AM/CW Transmitter; 6-bands, 50 watts input to a 6146 *(octal based 807)*, plate and screen modulated by a pair of 6L6's in push-pull. It's the sort of thing that the well-healed ham-about-town would have been using with his Eddystone 888 or 680X forty years ago. A very compact self-contained table-topper, 11 valves, it's not much bigger than the Eddystone it sat with. He would like to hear if any other members have vintage AM TX's which would have been used with Eddystone RX's in this pre-transceiver era.

*SPAM = Society for the Preservation of Amplitude Modulation.

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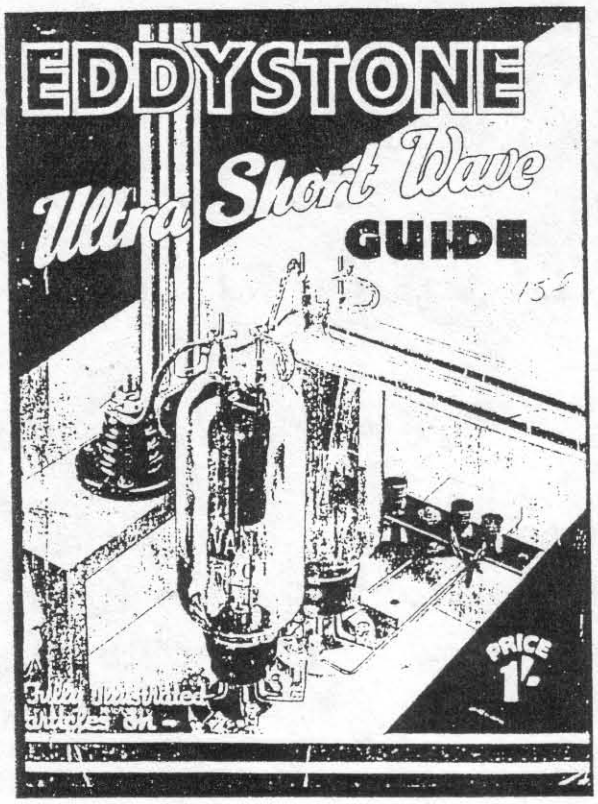


You've read about the Eddystone Short Wave Manuals (Nos 1-6, 1932-1947) now available to members.

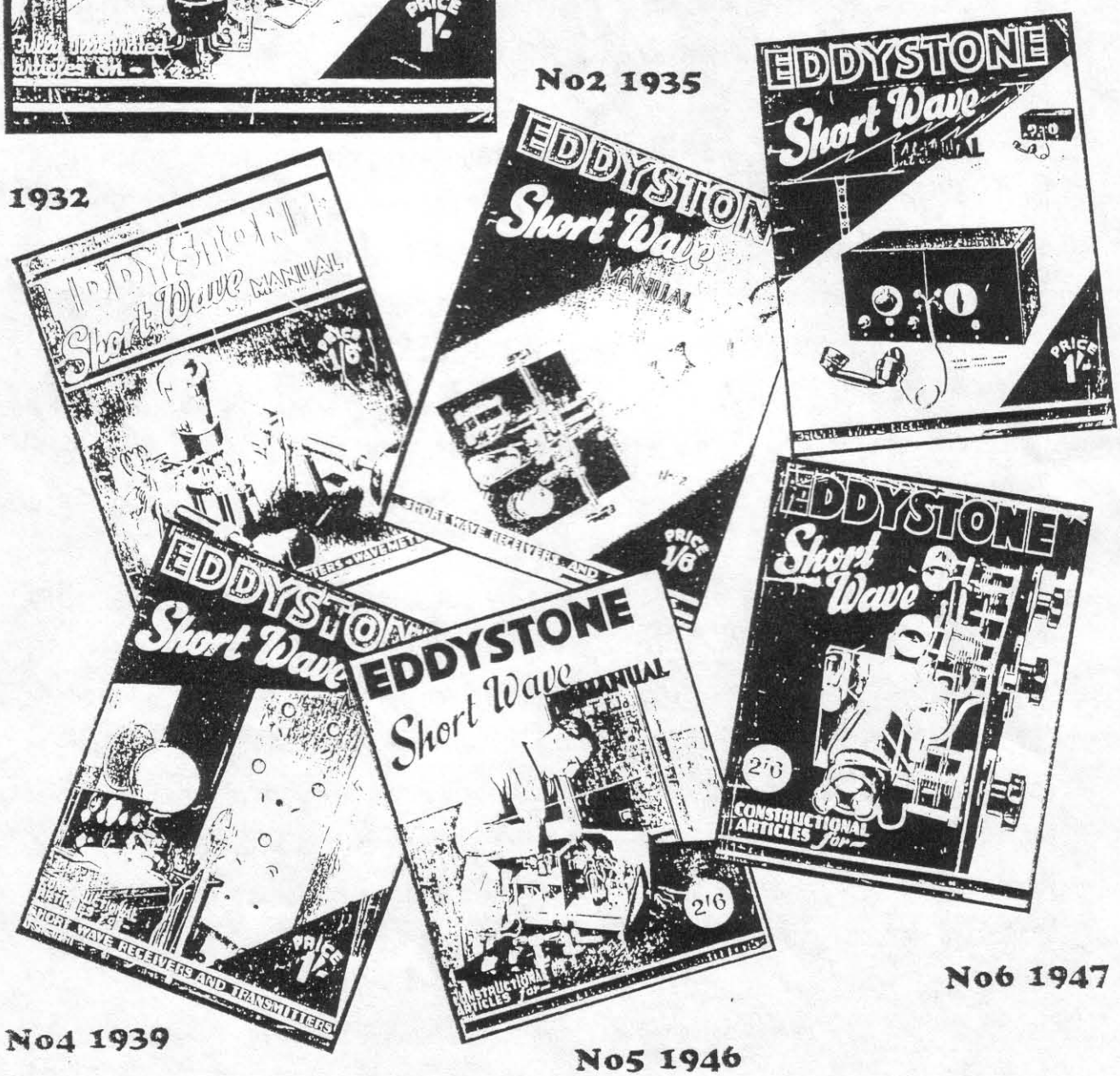
Well we've found yet another 'lost' Eddystone handbook, the Ultra Short Wave Guide of circa 1936.

Probably the first VHF handbook offered to British Radio Hams, it's in the same format as the Manuals, 31 pages A4, the same price. (£5 incl P&P).

No3 1938

No2 1935

No1 1932



No4 1939

No5 1946

No6 1947

Order from Graeme Wormald G3GGL
15 Sabrina Drive, Bewdley, Worcestershire DY12 2RJ