

Eddystone User Group



Newsletter

Issue No: 21.

Featured Model:

- The S. 504.-

- The First Post W.W II Communications
Receiver.

- A 10 Valve H.F Superhet using Octal Valves.

*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:

W.E. Moore, Moore Cottage
112 Edgeside Lane, Waterfoot
ROSSENDALE, Lancs, BB4 9TR

FREE MEMBERS ADS , please ensure that you give all the relevant information i.e Sell or Wanted, Model, Condition, Collect or Deliver, Price, and preferably the Phone number, or Address.

REMITTANCES BY MONEY ORDER OR CHEQUE ON A BRITISH BANK please, made out to E.U.G or Eddystone Users Group. Payment in Sterling please, otherwise bank charges will come to more than your remittance.

The Year for your subs; begins with the May/June Issue, there are six issues per year, if you join during the subscription year then you will automatically get all that years copies to date. Your sub will end with the March/April Issue.

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- From Your Mail.-

- Thanks to Graham Leese for the info on the ECR model, much awaited by a number of members, it is the featured model in the next issue (22), so just in time.

- Good to hear from so many of you that the Model List is of interest, nice to know it has already been of use to several.

* - Member R. Baker is having to dispose of his large collection of 100 plus Eddystones, now is your chance. He can be contacted on 021-556-3324, alternatively an SAE to R Baker, c/o Hallen, P.O Box 27, Wednesbury, W Midlands, WS10 7SZ. (A4 size envelope please). * IGNORE THIS * COLLECTION SOLD ALREADY *

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- Issue 21.-

- This early post war model, the 504, is representative of the sets that Eddystone would be producing throughout the next two decades. Some 45 years later I know of many 504 sets that are still in regular use, performing well and looking pristine. A tribute to the quality built into them as well as to the Tender loving care bestowed upon them by their owners.

- A recap of the subs system is on the inside front cover of each issue. Kathy says that this is the best way of doing it, and keeping her contribution to a manageable level.

- A special thanks to all those who do contribute a little something to the incidental postage costs. The cost goes up each year and yet many people seem never to have heard of an SAE, or even a stamp. The number of 'query' letters is quite high, for instance the guy in Canada who wants to know if the 850 can be used in 'earthquake prediction' and if so, 'how to go about it'. I guess that once you have the 850 it is simply a case of locating an earthquake area. It DOES go down to 10Kc/s though, and I do seem to recollect that some studies have been done on this subject. But have a feeling that the frequencies produced are more in the range of cycles/sec; not Kc/s.

- A number of queries followed the 820 in last issue, 'was there ever a stereo version of the 820?' Sorry, the answer has to be a definite no. (How about a Stereo EB35 instead? there WAS one!)

- Lastly to all those who send in old ads, they will get into the N/L sooner or later, have a vast backlog of items here for your future delectation. Many Thanks & keep them coming.

A query re the 'pillow speaker' model 1419. Well it would appear to have been a thin format high impedance job which needed a low to high Z transfo to feed it from the extension speaker sockets of a radio. The idea was for the method of 'sleep learning' whereby it is supposedly possible to learn languages etc; whilst asleep! Not too sure that it wouldn't keep me awake! Have never got hold of one myself but suspect it would have used a 'crystal' type transducer and reproduction would have been rather lacking in low frequencies.

- Featured Model, The S 504. -

- This receiver came out in 1946 and was the first postwar model which was on sale to the general public.

- A 10 valve communications set with 2 RF stages, followed by the frequency changer and 2 IF stages. There was a standard double diode triode stage next for detector, and audio driver stage for the 6V6 output stage. AVC was also supplied by this DDT valve, it was applied to the 2 RF and the 1st IF stages only and was switchable at will. A separate double diode valve was used for the noise limiter and the 'S' meter stages. Coverage was in five bands from 600 Kc/s to 30 Mc/s using a 450 Kc/s IF. The IF crystal filter was of the dual crystal type and was very effective on CW.

- Valves used are all octal types of the then standard Mullard range, i.e. EF39, ECH35 (not 6K8 !), EBC33, EB34, 5Z4 and 6V6GT. Do not try to use the 6V6M here as the pin 1 of the socket is used as a tie point for other components.

- Audio output is circa 3 watts into a 3 ohm speaker, or alternatively phones of medium to high impedance.

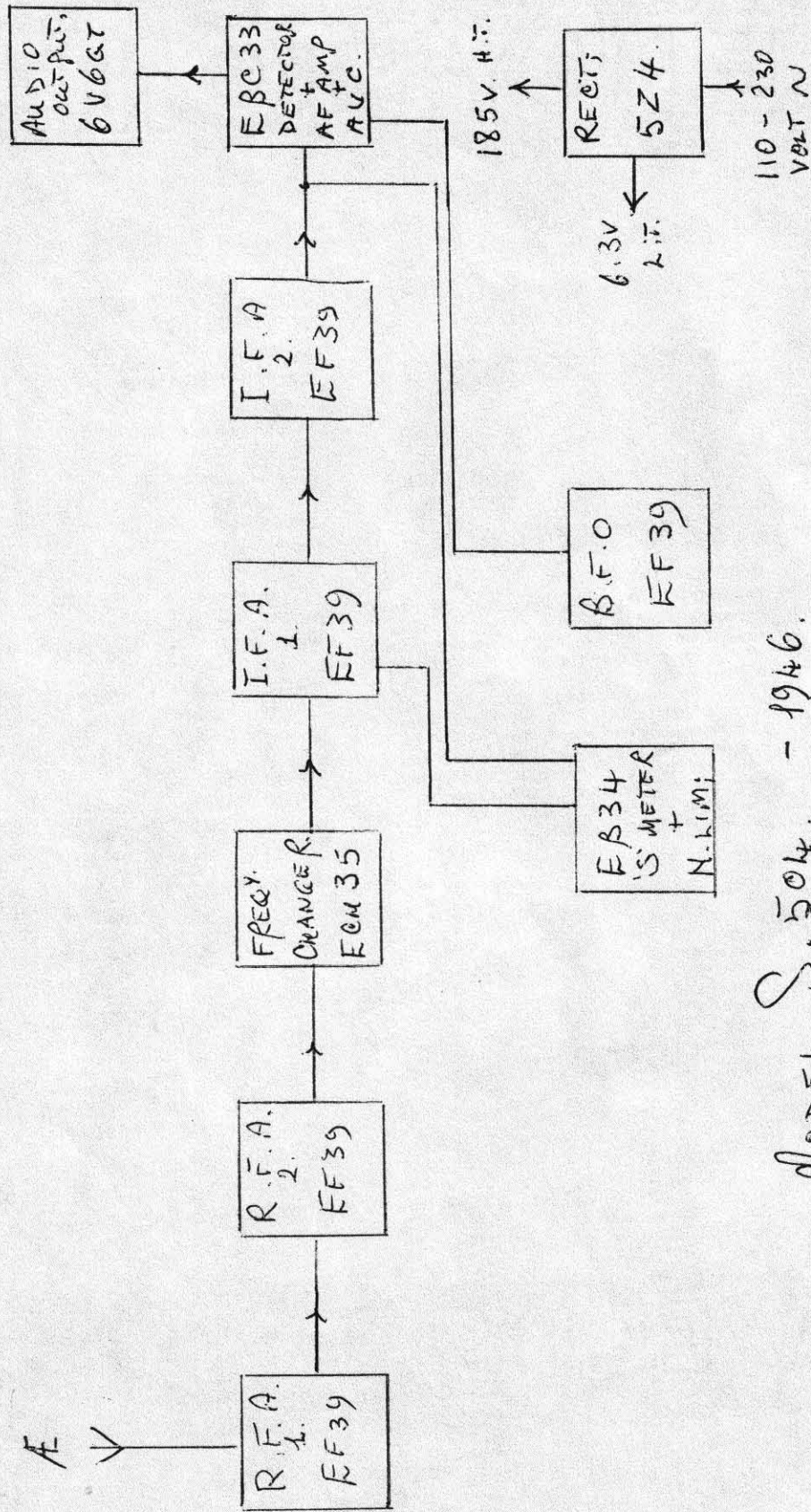
- In this model the aerial input is around 400 ohms and provision made to connect a single wire only.

- The 504 was a professional model made to very exacting standards and was just about the best on the market at the time. Two less complicated broadcast versions were produced, the 556 and the 556B.

- One point to note for DIY servicing is that the 450 Kc/s IF was purely 'nominal' and when re-alignment is necessary then the IFs should be realigned to the centre frequency of the crystal gate, this has a 300 c/s bandwidth and the crystals used could be slightly off the specified 450 Kc/s.

- Over the years no one particular fault has shown up on this model but bearing in mind the age, it would certainly be advantageous to check out the values of both resistors and electrolytics, also the paper type condensers might well be leaky. The carbon rod resistors of this era have a nasty habit of going high in value, especially in parts of the circuit where they have to carry DC current, viz; the screen droppers, not unusual to find a 100Kohm which reads twice that value. Not many 504s around for sale these days, some 40 known to me, members and museums. A good buy in the £90 to £100 range if you see one. (IF !).

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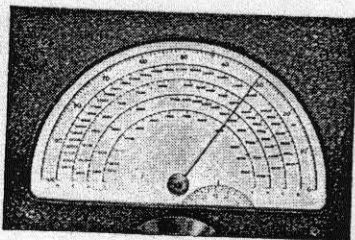


MODEL S. 504. - 1946.

EDDYSTONE

558x

SOME INDIVIDUAL FEATURES CONTRIBUTING TO AN OUTSTANDING PERFORMANCE

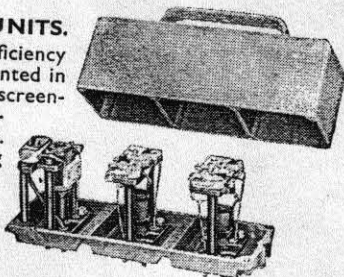


DIAL CALIBRATION.

The above photograph gives a clear idea of the manner in which the dial is marked. Four coils have direct calibration and the remainder are referred by graphs to the outer scale. The small Logging Scale is gear driven from the Drive Mechanism and, therefore, positive in action. By quick reference to the outer scale and the pointer reading thereon, and the reading of the Logging Scale, it is possible to return to any given point at any time quickly and accurately; further, any number of stations working on fixed wavelengths can be logged and returned to for operational purposes.

COIL UNITS.

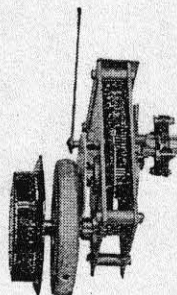
High-efficiency coils mounted in die-cast screening containers. Tuning ranges:



Range	Kc/s.	Range	Kc/s.
A	22,000—31,000	F	600—1,250
B	9,000—22,000	G	300—600
C	4,500—9,000	H	150—300
D	2,100—4,500	I	90—150
E	1,250—2,100	J	40—90

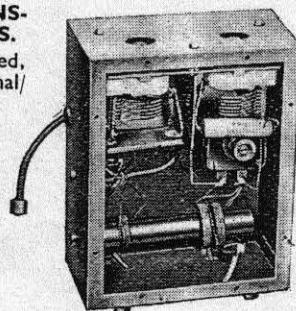
TUNING DRIVE MECHANISM.

Utilises a flywheel drive and spring loaded Tufnol gearing, giving a ratio of approximately 70-1. The gearing is driven through a friction disc and so arranged that when the pointer, which is attached to the shaft driving the gang condenser, is either at zero or 100 terminating point of travel, the small stop-pin prevents further movement of this shaft and the friction drive acts as shock absorber, removing strain from the Tufnol gears themselves.



I.F. TRANSFORMERS.

Air-trimmed, high signal/noise ratio and stability.



REASONABLE DELIVERIES CAN BE QUOTED FOR PRIORITY REQUISITIONS.

Full circuit details available in 30-page instructional booklet, price 2/6 post free.

WEBB'S

Radio

★ 14, SOHO STREET, LONDON, W.1.

Telephone GERRARD 2089

OPEN 9 a.m. - 4 p.m. SATURDAYS TILL 12 NOON

- Free Members Ads -

- Wanted, S meter for EC10 II, also Mains Transfo for 940- would consider whole unit suitable for spares. Have 770R I recently overhauled & realigned, also AR77 wish to swop for Eddystones. Please write to K G O'Brien, 18 St Helens Rd, Dorchester, Dorset, DT1 1SD. Or phone 0305-264688.

- Servicing, Dave Tizard is prepared to undertake servicing & realignment of any Eddystone models, Phone 0305-772927.

- Wanted, for 830/12, 100 Kc/s crystal in B7G glass, also toggle switch for 100/500 Kc/s calibrator on 830/12, also double ganged pot with concentric spindles for combined RF/IF gain = 10 Kohm + 10 Kohm linear tracks, also 12 way Jones plug/socket for 830/12 rear panel. Reply to A E Trayling, O/T IHME-Roloven, Hannoversche, Str.6, 30952, Ronnenberg, Germany. (callsign DJØMC.)

- Sell, 100 plus Eddystone Receivers, member disposing of collection so please write Baker, c/o Hallen, PO Box 27, Wednesbury, West Midlands, WS10 7SZ, for list send SAE, or ring 021-556-3324.

- Sell, Avo valve tester type CT160 in good order with manual, £85. Also Eddystone 770R I for £60. Wanted pre-war Eddystones + 504 + 556 + 820 + 930, also any accessories. Contact 0226-288718 evenings only.

- Wanted, Eddystone IF convertor type 959 (10.7 to 5.25 Mc/s), also Panadaptor type EP15 or EP20 (for 100 Kc/s input), also EA12 in excellent condition will swop for 830/7. Selling S 358 with 1 coil, is suitable for restoration - offers? Ian Millar, G1KMS, 105 High St, Weston Favell, Northampton, NN3 3JX.

- Wanted 770R II in good working order, also outer case for 830/3 (without the rack mount cutouts!), please write Jack Read, at 114 Colleys Lane, Willaston, Nantwich, Cheshire, CW5 6NT.

- Sell or Swop transfo for model 680 (type Parmeko 5084/6D) for transfo for a 640, also wanted small control knob for model 640, also want two off rear case screws 2BA with large chrome heads for 640. Phone to 0785-225106.

- Wanted 830 in good condition, prefer /7,/8,/9, Ring Bill on phone 0279-436660 (Harlow).

- Sell, Bulgin 2 pin connectors for Eddystone models such as 670A or 840A. These are new stock. Cost £2.25 each post paid. Philip Taylor, 14 Willow Walk, Canewdon, Rochford, Essex, SS4 3QH.

- Wanted for my 850, the vernier dial, urgent to complete rebuild. Tor Marthinsen, PO Box 2061, 3103, Tønsberg, Norway, or via EUG.

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REPAIRS, Dave Tizard is willing to undertake your repairs, he is in Devon so I guess delivery could be a problem, phone number is here if you need his services, - 0305 772927

HELP, Anybody in New Zealand can contact Ray Devereux re a fault on his 880, cannot read SSB on it. address is Daniels Rd, Kingsdown Rd.1, Timaru, New Zealand.

SALE, Eddystone EC1837/1 excellent condx, very good working order, for £410 o.n.o. Tony Edge, GOKUL, 3 Albert Rd, Bognor Regis, PO21 1NL.

SALE, 770U Mk II with plinth speaker, excellent mechanical and electric condx, working to spec: for £150.

SALE, 840A, good original condition, mech; and elec; to spec; for £85. Ring David on 0223-843408.

WANTED, Desperate to obtain for my ECR model, drum dial, cabinet and front panel, please can you help or make suggestions? SALE, modules number 1,2,3, and 5 for model 964. WANTED, AR88D any condx; for parts or rebuild, anything considered, ring Nick on 081-852-4065.

SALE, by Ted Moore, a number of Eddystone models, eg, EA12,830/8,750, EC10, 880II, 770S, 840A, 990S, EP17R, EP20, 840C, 680X, 888, 40A, 640, 770U/2, 940, 770U/1, also 2 off black diecast speakers model 688. Ring Kathy on 0706-218290 evenings only, all are working okay and most in very good condition, THERE IS ONE PROVISIO - they must be collected in Lancashire, cannot arrange delivery !!! Also a TRIO 9R59DS with the matching speaker, very good condx; a FAX-1 unit for weather and other Fax signals, latest software, a T/R 2 meter rig type CTE 1600 good working order but well used covers 140-150 both Tx and Rx.

ANSWERS TO MEMBERS QUERIES.

- Why is the Aerial trimmer on my 888a inside the cabinet when a more logical place would surely have been the front panel ? - Logical yes to an SWL like yourself but when the 888a was designed it was the intention that it be used by amateurs, and amateurs were consulted by Eddystone during the design stage, the apparent consensus at that time was that it need not be a front panel control since it would need adjustment but once for each range, or when the aerial was to be changed.

- What do I do for a replacement AF output transfo for my 940, I have spent several months searching around without success. - You will not easily find a genuine replacement, as you have tried the usual places suggested, why not opt for a 'standard replacement type' as sold by RCS, 337 Whitehouse Rd. West Croydon. Surrey. As the one in the 940 is an open frame type the replacement will not look out of place, and you will get your 940 back on the air again.

- My 870A has been repaired by a previous owner, the output AF transfo is marked 230/6 volt @ 0.5 amp. Is this okay or will it in time cause damage to the 870A ? - Nope, no problem re future damage this is an old trick when a replacement transfo of the correct size is not available, just make sure that the tone correction condenser is rated at suitable high voltage.

- Where can I get a replacement type rectifier for my 670, the one in situ expired with a nasty pong ? - Hard luck, the pong I mean from the selenium rectifier. Your best bet is to leave it in situ & rewire a modern mini type silicon diode in parallel, disconnect the wiring from the old one, reconnect the new diode suspended from the wiring, a 1N4004 will suit.

- Why does my ECR model have a smoothing choke in the negative HT lead instead of the normal positive lead ? - Unusual it is for Eddystone models, only one I can recall but it is just as efficient and there is one definite advantage from the designers point of view in that the choke insulation does not have to support the full HT potential, this may not be so important nowadays but in the 1930s the insulation properties of the materials used were not so good.

- What do the suffix letters after the various models stand for, I refer to the /A, /X, as in 840A and 680X for instance ? - I used to think as did many others that the A, and the X, stood for AC/DC and the fact that there was a crystal filter in the 680X, of course when I got to know the models better I realised that it was

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ANSWERS TO QUERIES CONTINUED.,-

just not so. No suffix letter then the model is in the old type case with a central square dial and half round scales, i.e. the 640 & 670. An A suffix meant the later long slide rule type dial and scale, i.e. the 670A and the 840A. An odd one out here would be the 750 though. The C suffix was for the later type i.e. the improved 670 version in the later style cabinet became the 670C, ditto the 840C. The B suffix as found in the 710B meant operation from a vibrator pack, usually 6 volt in those days, the 400B seems to be an odd one as in this case the model is described as a version for CW.

- What was the S.160 model please, saw one advertised in American magazine of 1946 ? If it did say a Stratton/Eddystone S.160 then I guess it referred to the ECR in a military version, some were used by the RAF and Army.

- Did you ever come up with an answer to the comment in earlier newsletter re the possible existence of VHF coil packs for the S.358 series ? - Well, I know that somebody claimed to have some but over the last two years I have come to the conclusion that the whole thing grew out of a misprint in an advert published in the Wireless World of May 1943, and maybe other issues too. It quotes that optional coil packs were available to extend the range down to 90 Mc/s but this was a typo and it meant to say 90 Kc/s. I hope that puts to rest the tale but I am sure that somebody will disagree.

- Lots of local QRM when using an outside Longwire, can you help with a suggestion to reduce this ? - Well hard to say not knowing the source of the QRM but a balanced type aerial system would almost certainly help, a dipole, folded dipole or better still a multiwire dipole system. This would obviate the need for an earth on your EC10 and since most local QRM seems to circulate through the aerial to earth system. Also one cut to the length of your favourite frequency band would help, try running the EC10 from battery power and see if that helps, some QRM is mains borne. Failing all this why not try and locate the source of the QRM and eliminate it .

- Who made the 1155 receiver as mine, admittedly modified has a Strattons type AF output transfo, the potted type ? - It was made by EKCO, but there were many mods published for this set in the post war years, especially the addition of a mains PSU and/or an output stage internally, probably the transfo was the only one to hand at the time.

- Miscellany. -

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- "The time has come the Walrus said, to talk of many things, " well that is just what we are going to do. Members letters cover such a wide range of subjects that I feel I could produce a newsletter devoted almost entirely of miscellaneous trivia.

- One member who lives close to the Moorside Edge BBC transmitter site tells me that his 680X picks up a harmonic of the Radio 5 signal on 2727 Kc/s, when he rang the BBC Engineer at the site he was told it must be due to his receiver needing alignment. Not satisfied with this reply he took his EB35 III out with him to another location and using battery power and a random wire aerial was again able to pick up the transmission - they still would not believe him.

- Dave Langdon still uses a 358 which he liberated after WW II from a mound of demobbed equipment being buried in a trench bulldozed somewhere in the midlands, he says that many thousands of pieces of radio equipment new and used were buried there. A housing estate now stands on that site.

- Recently advertised solar panels provide 80 mA, more than enough to run your EC10, as Colin is doing, daylight indoors is sufficient and allows him to economise on batteries, being a pensioner he does appreciate the economy.

- A recent PW article on building an outboard BFO spurred Tony to action, having built this BFO and incorporated it in his EB35, switched by the now unused dial light switch, he fitted permanently on LEDs, he can now listen to all the SSB signals that had previously been just a garbled and unreadable signal. He has plans to make the AVC switchable and RF gain variable. He found that the front casting does have several 'spare' holes for pots and BFO tune, they are merely masked by the escutcheon (finger plate).

- An advert in a Southcoast Radio club newsletter advertised a 'two ton winch offered in exchange for valve type Eddystone receiver' - a normal sort of ad except that the n was omitted from winch. Visions of a two ton witch complete with broomstick, I wonder did he get any replies? Reminds me that EUG ads have made several members very happy of late. Nice to know that the ads serve a purpose.

- Help, The change over in NDB frequencies has meant that all my records are useless. I am now trying to re QSL all those elusive, CW NDBs. None are MCW nowadays so a BFO is a necessity.

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- EUG can offer members copies of various booklets as per the list, P & P inclusive.-

- No;- 1, Better Radio Reception, as supplied with many new models of Eddystone. @ £2.
- No;- 2, Eddystone Shortwave Manual no; 5. 1946. @ £3.
- No;- 3, Current Eddystone Model List, 1964. @ £2.
- No;- 4, Current Eddystone Model List, 1965. @ £2.
- No;- 5, T.R.F. 1-V-1 receiver using Eddystone components. circa 1949. @ £2.
- No;- 6, Eddystone Shortwave Manual no; 6. 1947. @ £3.
- No;- 7, Eddystone VHF 145 Mc/s Guide, late 40s. @ £2.
- No;- 8, Span the World with a Shortwave set, building the Scientific S.G Three. 1928. @ £3.
- No;- 9, Eddystone Shortwave Manual 1932-3, building info on many kits, general info for SWLs, transmitter circuits, current listing of SW stations. 40 pps. @ £5.
- No;- 10, List of Models, Abridged Catalogue, @ 1973.
- The Eddystone Compendium is out at last, it is spiral bound and contains many period ads, magazine reviews, actual circuits and trivia from the 1920s to the 1980s. not cheap but it seems to fill in those gaps that cause frustration to many members, it has a potted history of Stratton/Eddystone. @ £9.
- Manuals and Schematics for most models can be supplied, just write and ask us, if the model has a suffix or mark number do quote it to avoid unnecessary correspondence. Just asking for a 770, for instance is not much good. (Yes it has happened.)
- Spares for your much-loved Eddystone, - no EUG has none, nor can Eddystone supply them for the older sets. Your best bet seems to be an ad in the newsletter or try Centre Electronics, ^{HOWARD} Harold Turner can usually find the needed item, most members who have tried him have got what was needed.

- Nobody is Perfect. -

- Even in the most Quality conscious factory there are sure to be some 'rogue' sets that will get past the QC inspectors, everybody has an off day now and then. That this did happen at Strattons can therefore only be expected. Several members letters have brought to light receivers where the odd wiring fault had been found. Mostly after many years of use ! so that the fault could not have had any serious effect on the operation of the set.

- In the case of an EA12, one of the first to be built, if the serial number is anything to go by, such a wiring fault was found more than 25 years after the set had left the factory. Since the original owner was known it could be ascertained that the fault was not the result of DIY work. In this case after some 20 years of storage the EA12 came to its new owner for a 'song'. The first job was to reform the psu electrolytics via a variable HT supply, a good idea with any set that has been unused for a long time. Checks on the various listed voltages were next made, this proved that a number of resistors had gone 'high' - not at all unusual. Several of the 'paper' condensers were found to be leaky at the same time. Replacement of these items brought all voltages into line with the spec; the set was next tried out on an aerial. All okay here except that when the crystal filter was switched in the audio was flattened completely. Some hours, and a lot of head scratching, later, it was found that the original factory wiring was incorrect, this was checked out with the owner of another EA12 before any corrective work was done. No doubt at all that this was the original wiring and soldered joints, when corrected the CW filter worked correctly, for the first time ever. On this same set - some time later - it was found that gain was way down on the 80 metres range, a check on all other ranges showed gain to be within spec; so this did limit the area of search somewhat. Again, much head scratching later, it was decided to remove the 80 metre band-pass coils. It could now be seen that the 80 metre coil was wound in the reverse direction to the others. Simply transposing the wiring to the coil brought the gain up to normal. After a re-trim the range met the spec; (Colin, did you ever write that letter to Bill Cooke ?)

- An easier one to locate was the 659 where R32, the bias for V5, the 6V6, was a 330 ohm resistor in lieu of the specified 270 ohms, in this case it was a certainty that no tampering had taken place since the set had been in one owners hands from new. There are several 330 ohm resistors in this area of the set, easy enough to make a mistake.

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Even in the Bath-Tub it would seem that the gremlins were busy. I did have to admit to one former Eddystone employee that the incidence of such 'clangers' was very low. Not on a par with similar happenings on say the Decca production line of the 50s. Having had to service Decca Navigators in that era I can remember some beauties that got out onto the market.

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- Far and Away. -

- In both ways, this heading refers to some correspondence with the owner of a 750 in Buenos Aires. The receiver has been in his hands since new in 1951, and from the list of call signs that he has sent he has worked all Continents, and several hundred countries using this as his main receiver, still does today. The set has had a number of valve 'refits' but is otherwise as when bought.

- Another member in the tropics mentions that his rubber covered mains lead has had to be replaced on several occasions as a species of local ant has a voracious appetite for the outer rubber sheath, will not touch red/black or brown/blue wiring insulation but loves the white outer variety. The recent fitting of plastic insulated wiring may do the trick, remains to be seen.

- A model 740 which is bicycle operated ? well almost but not quite. This set has been a built-in feature of a barge on the River Elbe since new and during its lifetime the 6 volt accus which power its vibrator pack have been kept recharged in various ways. Originally the old 'one lung' diesel had a 6 volt dynamo, very handy. A later flat 2 cylinder diesel had a 12 volt dynamo, not very handy for 6 volts. A truncated bicycle frame driving an old 'beetle' 6 volt dynamo is now in use to recharge the 6 volt accus when needed. A new plan will be to charge 2 off 6 volt accus in series at one time from the engines dynamo.

- The 'baby' Eddystones such as the EC10 or EB35 series are used in many far flung places. EUG has knowledge of their use in Papua, Samoa, New Zealand, Denmark, Alaska and Nepal. Places where mains supplies are, for many, just a dream. When available the mains is far from reliable, one member can rely on his mains supply for less than 10 hours in 24, even then its 120 volt level can be as low as 80 or as high as 150. Depends on what other stuff is in use nearby. I do know of a number which rely on solar power for battery charging, others which rely on dry batteries which cost a mint to procure. One at least is known to run on 'windmill' power, used to supply the whole household as well. David in Papua says that each 'D' type battery costs him over

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a pound sterling, and six of them last but 10 days, here is the ideal place for a solar panel to charge some Nicads.

- Addis Abbaba and local mains which are nominally 220 volts AC, but according to one owner of an 830 the supply voltage can go as low as 170 during TV viewing hours, or up to 260 during the early hours of the morning. The 830 does however seem to cope okay with this varied diet. He is intending to obtain one of those transfos with a slight step up ratio coupled to a saturable core as sold for TV use in many parts of the world. A promise of one from Italy has been made recently.

- And we think that in the UK we have problems using our Eddystones from a fairly well regulated supply !

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- Prices, High & Low. -

- Despite the grossly inflated prices that some people are asking for Eddystones it is possible to get a bargain if you watch the ads in one or other of the hobby mags, Radcomm, SWM, PW - even EUG !!

- Recent low prices asked have been £50 for an EA12 (last month). A mere £27 for a good working 640 with matching speaker is pretty good too.

- The other side of the coin is the £170 asked for a 730/4 by a London dealer, one of the get rich quick types this as he also offered an EB35 for £90 to an EUG member, who went elsewhere and got one for a more realistic £40. At a recent rally a nice looking 830/2 went for just £85, a 770R mark I at £80 did not sell.

- The price of £39 plus VAT plus carriage for a round diecast speaker, as paid for one by a member recently, is definitely 'over the top' so far as I am concerned. Two members have written re the purchase of these privately, one at £5 and the other for £8, more like it !

- I cannot but wonder when I see - as in a recent ad - an EC10 mark I offered at £128 plus carriage. Recent going rates for this have been in the £40 to £60 range.

- Another member who had splashed out £160 for a 680X was very upset to receive an offer of one, plus speaker to match, for £75, and it was only 7 miles from home ! Moral is, I guess, if you need to count your pennies (who doesn't), then take your time, lookaround a bit first, check the small ads.

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- Free Accessory Power.-

- Well NO, nothing is really free in this world. But this is as near as you can get to it says Davie Lomas.

- If you are contemplating fitting a low consumption solid-state accessory to your hollow-state receiver, i.e. a single tranny calibrator or maybe a simple pre-amp then how about deriving the necessary small voltage from the electrolytic bypass in the kathode of the output valve ? It is workable, has been done many times, a low value series resistor, or small RF choke in the lead from the kathode, plus say a 0.1mF to decouple the supply will normally suffice. I have a 670 fitted with a BFO, quite a pro job, and the supply is derived in this way.

- Another idea is where the nominal current can be taken from the heater winding of the mains transfo, via a diode bridge and e'lytic for smoothing, some Eddystones even have a spare unused winding just asking to be utilised.

- Suppose you need a higher voltage of very low current, well how about a voltage doubler circuit ? easy to get a 12 volt DV supply in this way.

- Beverage Aerials.-

- Funny thing this, have I maybe missed something in recent mags; on the subject of Beverage type aerials ?? Have had four letters on the subject here recently, all querying what is one of 'these' aerials.

- One letter even asks the question 'where can I buy one please ?'. To this a succinct 'you cannot pal' - not to my knowlege at least.

- The facts are that the Beverage aerial is a very, very, very, long, long-wire so you do need plenty of real ~~estate~~ if you plan to put one up. The first essential is that the length must be a number of fullwavelengths at the frequency in use, secondly this is basically a low frequency aerial, definitely not for VHF. Height is not so important and I have seen them a mere 12 foot above ground, but oh so long, just stretching into the far distance. Not the thing to fit into one of todays Barratts 'pocket hanky' backyards. I know of one professional listening station where Beverages of use on the lower HF bands were several kilometres long, supported on a seemingly endless line of telegraph type poles, aimed in this case towards the, then, iron-curtain countries. I guess if you can combine farming with the wireless hobby then you are okay, in fact a handy galvanised wire fence in the right direction would be 'ready-made' for this use. The great thing about the Beverage is that it is highly directive.

SOME ANSWERS TO YOUR QUERIES.

- The best Eddystone model for DXing of NDBs ? - Well there is no way about it this has to be the 850, usually either the 850/2 or the 850/4 models are found on the market, either will do. These are models specifically for LF with a total coverage of from 10 to 600 Kc/s only. With a total of 12 valves and an I.F of 720 Kc/s performance is more than adequate for this purpose, the audio filter can be quite useful here for bringing signals up out of the noise.

- Why after some four months of non-use should my EB35 fail to work at all, previously has been problem free for many years. When put away it was working normally, storage has been in a living room at normal temperatures. - Well two possibilities come to mind immediately, both have happened to me with sets stored for a time. Do you get any output on phones but not on speaker ? try cleaning the contacts on the phones socket, these do have a habit of corroding when the set has been used and phones have been left in the socket for some time. If this is not the reason then it sounds like the Germanium Gremlins at work. Some of the transistors used will be seen to have 4 wires on the base, on these 4 legged types, typically the AF114 or AF115 series, an internal short tends to develop with time between the collector and the outer metal case, which is actually a screen connected to chassis earth. The cure is pretty simple, just snip the screen lead, this will actually leave the outer case at collector potential and so you should ascertain that this case does not touch any other part of the set. I cannot count the number of sets, not just Eddystone, that have been miraculously brought back to life by this simple operation.

- Voltage Readings given in Eddystone manuals, what tolerance to allow for when using a modern digital meter. Since all are quoted as for use with analogue types such as an AVO ? - Hard to say here since the impedance of the meter will be very high and this will cause all readings to be somewhat higher than on the Avo type. If you do have to use a DVM then I would try to stick to within the percentage usually quoted, plus or minus 5% usually. The main points where there will be large differences will be in the high impedance parts of the circuit such as AVC lines, or Audio amplifier anode circuits.

ANSWERS TO QUERIES continued;-

- What is the 659/670 model ? HELP, I would like to know this animal myself. There are those who tell me it does not exist - that in fact the 659/670 is simply taken from the scale plate which could be utilised for either model. A good theory and seemingly a logical answer but for the fact that there are those who say that there are two models 659 and a 670 but that there is also a hybrid model which is mentioned in Company literature. It is also included on the model list which EUG received from R. Baker and I cannot argue with HIM. So far three members claim to have a 659/670 so it MUST exist.

- Yachtsman model ? well EUG now has info on this, it is a 12 volt DC vibrator model for marine use which had the various Time signal stations plus Consol stations (remember Bushmills ? and the Stavanger one is still on, callsign LEC.) and various other stations such as Airmet, no longer with us on Long wave. It was designated the 720 model.

- Why has the replacement tone correction condenser across the primary of the AF transformer on my S.504 failed a second time after just 3 weeks. It is the correct value of 500 pF ? - Ah but is it the correct working volts ? In this position the full AF voltage is developed across the primary. A mica or ceramic type for say 400 v.w. is preferred here. From what you say yours came from a scrap 'tranny' and was more than likely of about 50 v.w.

- Increase of subs to cover cost of postage etc; ? - EUG has to pay it's way, Kathy & I are not rich philanthropists doing this for kicks. Your sub pays for the postage on six newsletters which are these days some 20 double sided sheets, photocopying & paper plus the envelopes all add up. Look at your glossy mags full of commercial ads and see how much is actual text, apart from all those so-called independant product reviews which are no more than ads in another form. The newsletter contains as much or more pure info as many of these glossies, so many of which are becoming more & more computer orientated to the detriment of the radio fan.

- A real life 'Disgusted of Tunbridge Wells' here, Dave of that same town (city) asks why EUG cannot send out a monthly newsletter, with REAL news ? - Just one word Dave really, COST, it will mean that subs have to go up to double, of course Time comes into it as we are pretty stretched as it is, the two of us do everything. As to your Real news, your capitals, well that would have to come from the members, what we do get goes into the next newsletter if topical otherwise it will go in a future one, Okay Dave ?

- 'Ware the B & B Bargain, Again. -

- Yes I know that I have been caught before, and that I ought to have learned my lesson the hard way. This time I had no excuse, if you refuse to accept enthusiasm that is.

- It was at Leicester and the 'object in question' looked to be a very nice 670, gleaming and very seductive to any Eddystone lover. Just one point made me hesitate, this was the addition of a standard toggle switch in the bottom left corner of the front panel, just over the point where the OFF is normally printed. It had been quite neatly done and so I thought little more and happily paid the asking price of £40 and was assured that yes the set did work fine.

- Getting home, having filled my belly to recompense for the four hours driving and the six hours of walking around the show I decided to investigate the 670. I always open up new ly bought sets and do some checks with a meter first this is all the more necessary if the set in question is an AC/DC model like the 670. No surprises there as both live to ^uneutral resistance and live to case resistance measurements were AOK. Whilst the set was open on the bench I checked out the toggle switch wiring, to fit it in the original large pot used for combined tone control and mains ON/OFF had been replaced with a smaller one which looked to be wired in correctly. The toggle switch was of the single throw single contact type and had the two wires going up and along to the vicinity of V3 the IF amplifier stage, at that time I could not make out the purpose of this mod and decided to power up the 670 and find out in practical terms just what the toggle switch did. The set came on okay after warm up but it did not seem to be as chirpy as my other 670, operation of the switch whilst listening to a broadcast signal introduced a degree of distortion and a whistle, tuned to a cw signal the switch appeared to produce a fixed BFO effect although for the life of me I could see no extra circuitry either under or on top of the chassis, a real puzzler this. Checking the switch wiring again revealed that whilst one length of wire appeared to go directly to the output of the IF amp and the other to the input of the same stage, there was no DC continuity from end to end of these wires. It was then found that the wire from the switch contact went into a length of systoflex, as did the wire from the IF amp, but they simply lay close together in the sleeving, making a low value condenser. The effect was to produce a small degree of regeneration of the amplifier stage, thus the fake BFO action, effective on CW anyway. It was left in situ and the set was re-aligned to bring it up to normal gain, a five hour job altogether. Not as bad as I had thought.

- It was in 1949 whilst working as a deckhand on a Mersey tugboat that I met up with my first ever Eddystone. This was a model 659, the eight valve, four band, short and medium wave broadcast receiver, a fairly new model which came out in 1947. On this boat the 659 was a multi-function receiver, via a small control box mounted on the bulkhead alongside it was possible to switch the output from the nearby wheelhouse speaker to a speaker mounted in the crew space, it was also possible to have both on if required at the same time. Used for timechecks, weather forecasts, and just general entertainment programmes from Auntie, the familiar term for the BBC. However it did also cover both the 500 Kc/s CW emergency channel and the various MF channels used by the Post Office ship/shore stations for R/T, this included of course the 2182 Kc/s frequency. Since the main ships radio equipment was of 1930s vintage reception on the 659 was quite often better than on the old Marconi installation. One further use of the 659 was as a crew P.A system. A fourth position on the control box disconnected the nearby wheelhouse speaker, connected the speaker in the crew space and also connected a microphone to the P.U sockets on the rear panel of the 659. This enabled the watchkeeper to call up off duty crew members as needed. My recollections of this part of the equipment are that it was a hand microphone of the carbon granule type with a push to speak switch, it was energised from a twin cell cycle lamp battery and fed into the P.U sockets via a transformer. This arrangement gave more than adequate audio output over and above the normal noisy working environment, with the audio volume control of the 659 at its normal position of about half way advanced. This level of output was due of course to the fact that the 659 output valve is a 6V6G. During my three years on the tug the 659 was never in need of repair and functioned perfectly despite the somewhat unorthodox method of mains feed. The tug had a 125 volts A.C mains supply, the actual frequency was somewhere in the region of 25 to 30 cycles although the data for the 659 specifies limits of 40 to 60. The additional supply volts, the difference between 125 and the receiver setting of 110, was dropped by a large series wire wound resistor which was mounted in a wooden cupboard below the 659 shelf. It was nominally a 100 ohm 10 watt resistor tapped at about two thirds. As aerial the 659 had a length of some 15 feet of wire spliced into the end of a steel wire rope giving a total of some 45 feet overall. One anomaly was that it could not be used when the winches (electric) were in use, since the apparent voltage dropped when these came on disabled the 659 local oscillator.

Dave.

Are you interested in 145 Mc/s?

If so, make a point of seeing the new EDDYSTONE 145 Mc/s GUIDE. It describes a compact and efficient converter using readily obtainable valves and a crystal-controlled transmitter capable of an excellent performance. Both units are tried and tested, and you can rely on getting really good results. Advice is also given on aerials. Perhaps you are a little doubtful about 2 metres? It is an easy band on which to get going, and the units described in the Eddystone 145 Mc/s Guide will not take you long to put together. Or do you just want a receiver? The converter in the Guide is very fully described, and construction has been simplified without sacrificing performance. Difficult metal work is avoided if you obtain the ready drilled chassis, etc. The converter can be used with any receiver which tunes to 10 Mc/s.

EDDYSTONE 145 Mc/s GUIDE 1/6

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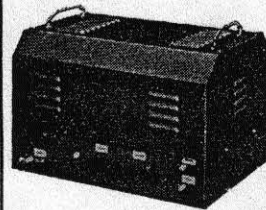
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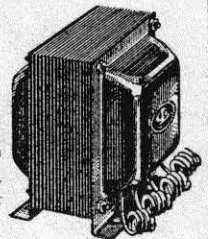
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- Finis. -

- Well that is it for another issue, keep your letters coming in, be they queries, ads or items for insertion in the newsletter. You do not have to have your name printed, if you are shy. Some have commented on this point in letters, if you want an item printed, if it is suitable, then it will go in. Same for ads - we prefer to put your phone number in lieu of address, if you so wish you can have answers to your ads sent to EUG for onward mailing to you.

- Thanks to all those who have sent in period type adverts or other items. If they have not been used as yet - patience, they will be in time.

73,

Kath & Ted.