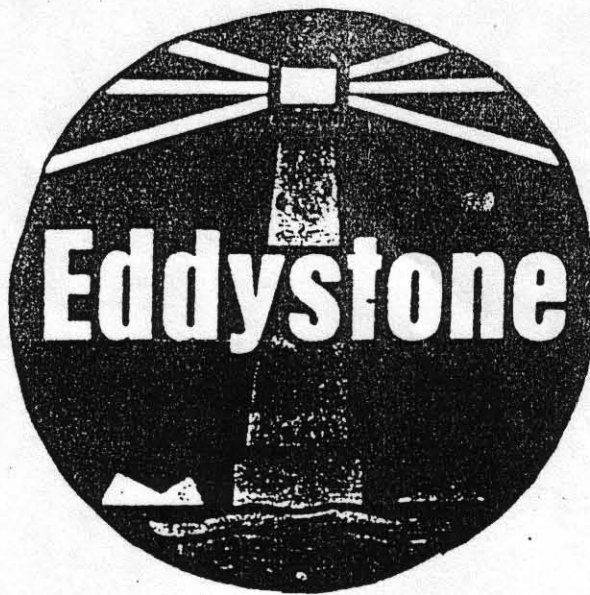


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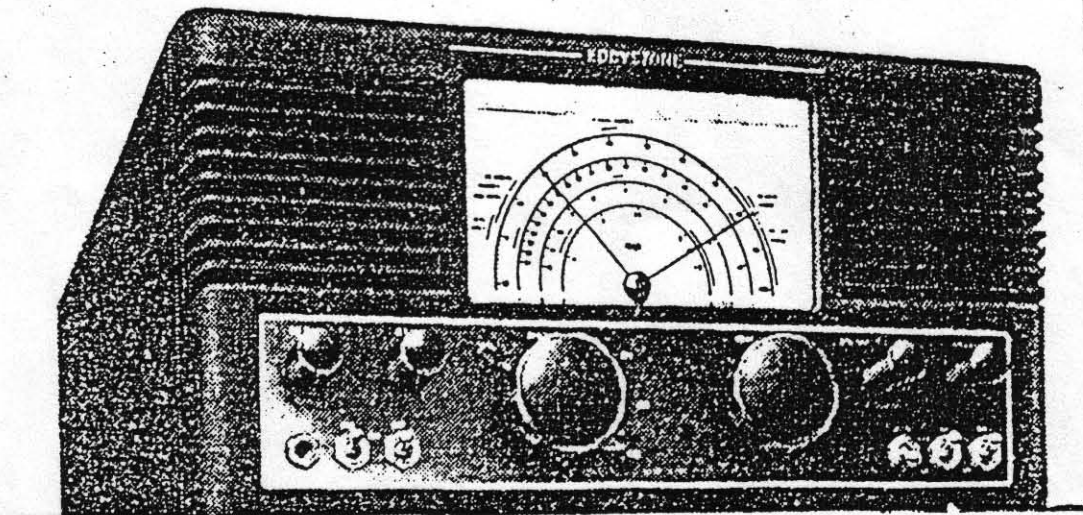
640

640



680X - p.3
 EC10 - p.3
 BFO - p.5
 FAULTS - p.9

Eddystone
 Users
 Group



MODEL 640

ISSUE NO. 6

MARCH/APRIL, 1991

Information quoted from Eddystone Co. Manuals by kind permission of Chris Pettit, Managing Director, Eddystone Radio Ltd.

Featured Model in this issue - 640

A non-profit making newsletter for Eddystone users. Address all mail:-

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

So, a milestone! At the end of its first year the E.U.G. is a success - if only I had started the group years ago. Some members are beginning to write in. Members' ads do seem to be selling, despite our somewhat limited circulation, and what is most important, membership is still going up. Unfortunately so are costs for postage and printing. Selling of manuals and circuits is helping to finance the newsletter and I intend advertising in magazines shortly, as well as going to rallies with some of my own collection.

Members, some of you anyway, are writing in with information about their own experience with Eddystone Receivers - see this issue - and asking for help with faults on 'sick' receivers - which is what we are here for.

Complaints, we have had just one real letter of complaint and two more with minor criticism, now that could be apathy - except for the letters from our satisfied members. Thank you to all those who have taken the trouble to say that they enjoy E.U.G. Newsletter and to offer constructive suggestions. I will take up some of those suggestions now, and reply if I can.

1. Make newsletter a monthly and/or increase the size - a lovely idea but we would need more input from 'you' the members. Cost would go up, both printing and postage, some could be recovered by taking adverts, selling circuits, even sale of parts from my 'cannibalised' receivers.
2. Turn it into a regular "Glossy" type magazine - most of the answers to 1. apply to this suggestion, especially cost. Our membership is not yet sufficient to cover this. However, changes are coming - a more professional format, professional printing and post office approval for bulk posting.
3. Rally presence - yes, I'm all for this and will need help! When I can arrange this I shall contact members for help with the rally stand, helpers would get free entry to the rally in return for some help manning the rally stands with a load of receivers on display, some security would be necessary.
4. More historic information, yes, there will be more of this and vintage adverts too. The vintage adverts especially seem very popular.
5. Sources, for receivers, parts, literature - as new sources come up I will put the information in the newsletter. Again members can help by writing in with the information, advertising their receivers in the newsletter even.
6. Modifications - I am not in favour of doing mods to receivers such as these, especially not mods likely to be reversible, such as one member suggests - replacing valves in his 940 by F.E.T.s Other mods which can be removed or reversed i.e. no external changes, extra holes or the like, are okay, some will be published in future issues as the one for converting the unused IF buffer in some models into a calibrator switchable with the standby switch.

* **WANTED!** For your newsletter old ads or other literature connected with Eddystone radios or the company. We can photocopy your originals if you cannot. Any information on books with mentions of Eddystone.

SFERICS - next issue we will have information on a WWII special manufactured by Eddystone for the S.O.E. called the R1491. It was a very compact portable designed to be used in remote areas by resistance groups with a coverage of only MW, it was intended only for reception of the codes signals on B.B.C. transmissions. It features a two valve T.R.F. circuit, which using a short wire throw-out aerial gave good medium wave reception on phones, see next issue for more details.

Getting back to comments in previous newsletters about open circuit heaters why are the double diodes, EB91, EB34, EB41, more prone than others? Several members have the same comment to make. These valves used in detector, noise limiter and A.V.C. circuits, do seem to fail more often. Alan Richards has replaced 3 EB34 valves in twenty two years, and only one other valve, the 6K8 which succumbed after 18 years to low emission, evidenced by no oscillation above 16 M/Cs, all 3 of the EB34s had open circuit heaters. Any members who can help us? I do know from my years in the services, and as a repair engineer, that Eddystones are not alone, 6H6 valves in R.A.F. equipment had a poor reputation. This is backed up by comments from other members who have 'services' background. Paul Davids suggests the manner in which they are used, the associated circuitry could be at fault. However, they do not usually have to handle any more than a few volts in A.V.C., N.L. or detectors. As a comparison I have a self-contained valve type calibrator, mains operated and the 65 volt D.C. for H.T. is obtained from a 6H6M used as power rectifier. The original valve is still good after 27 years!

S. 640

This was planned as 'feature' receiver several issues ago but as members kept on asking for the more popular models so this one was put on the shelf, here we go -

The S640 produced as the first post war receiver was aimed at the amateur market worldwide. It is a nine valve superhet using the standard Mullard octal range.

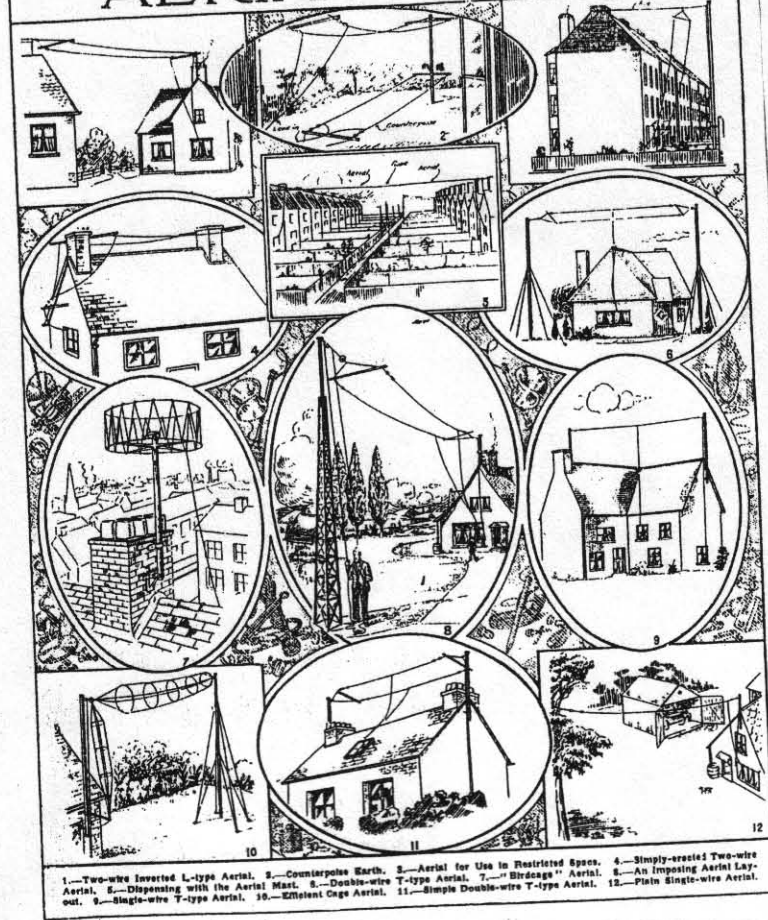
Coverage is 1.7 M/cs to 32 M/cs in three overlapping bands of 1.7-4.5, 4.5-12.6 and 12.6-32 M/cs.

Quite unlike most other Eddystones the two large knobs on the front panel are both tuning controls! Coarse on the left and Bandspread on the right. This is full electrical Bandspread with a completely separate 3 gang variable condenser and separate pointer/drive system. The various amateur bands are marked on the scale in green and bandspreading is quite adequate even by today's standards on 28-30 M/cs = 45 divisions, on 14.0-14.4M/cs. = 66 divisions, on 7.0 to 7.3 M/cs = 51.5 divisions, on 3.5 to 4.0 M/cs. = 84 divisions. Note that although it does cover the later 18, 21, 24 M/cs. bands they are not green lined on the scale. However, they are band-spreaded. In fact the whole range is band-spreaded 1.7 to 32 M/cs.

Valve line up is -

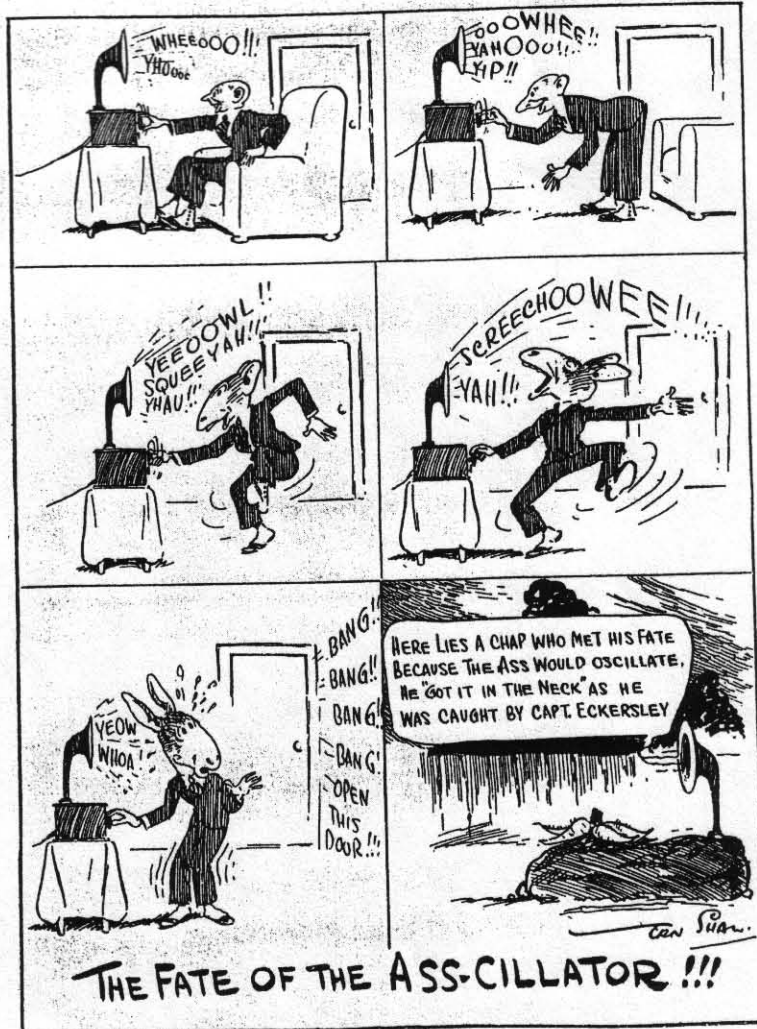
V1 EF39	V4 EF39	V7 6X5GT
V2 ECH35	V5 6Q7GT	V8 EB34
V3 EF39	V6 6V6GT	V9 EF39

AERIAL TYPES



TAKE WARNING!!

CIRCA 1925.



The high I.F. of 1,600 Kc/s gives high adjacent channel selectivity, good attenuation of image signals, the switchable crystal filter if correctly phased gives enhanced selectivity with very little attenuation. Calibration is accurate with easy and repeatable frequency setting. Both coarse and bandsread tuning drives are backlash free and silky smooth. The high 'Q' IF transformers on mine are still on frequency and check on my signal generator (itself checked by digital frequency meter!) They have never been reset since new.

Low noise EF39s in RF and IF stages added to careful design give a remarkable low noise level with a sensitivity of better than 2μ volt for 50m volt AF output, the aerial input is 400 OHM, balanced or unbalanced.

Audio output from the 6V6 is 3 watt maximum which is attenuated for use with high impedance phones.

AC only operation from 100-230 volt supplies with a 60 watt dissipation is normal. However, an octal socket on the rear panel permits operation from an external 6 volt vibrator unit.

A second octal socket permits connection of the Eddystone external 'S' meter unit. This is an optional accessory unit in solid diecast casing which can be used on various receivers i.e. 740.

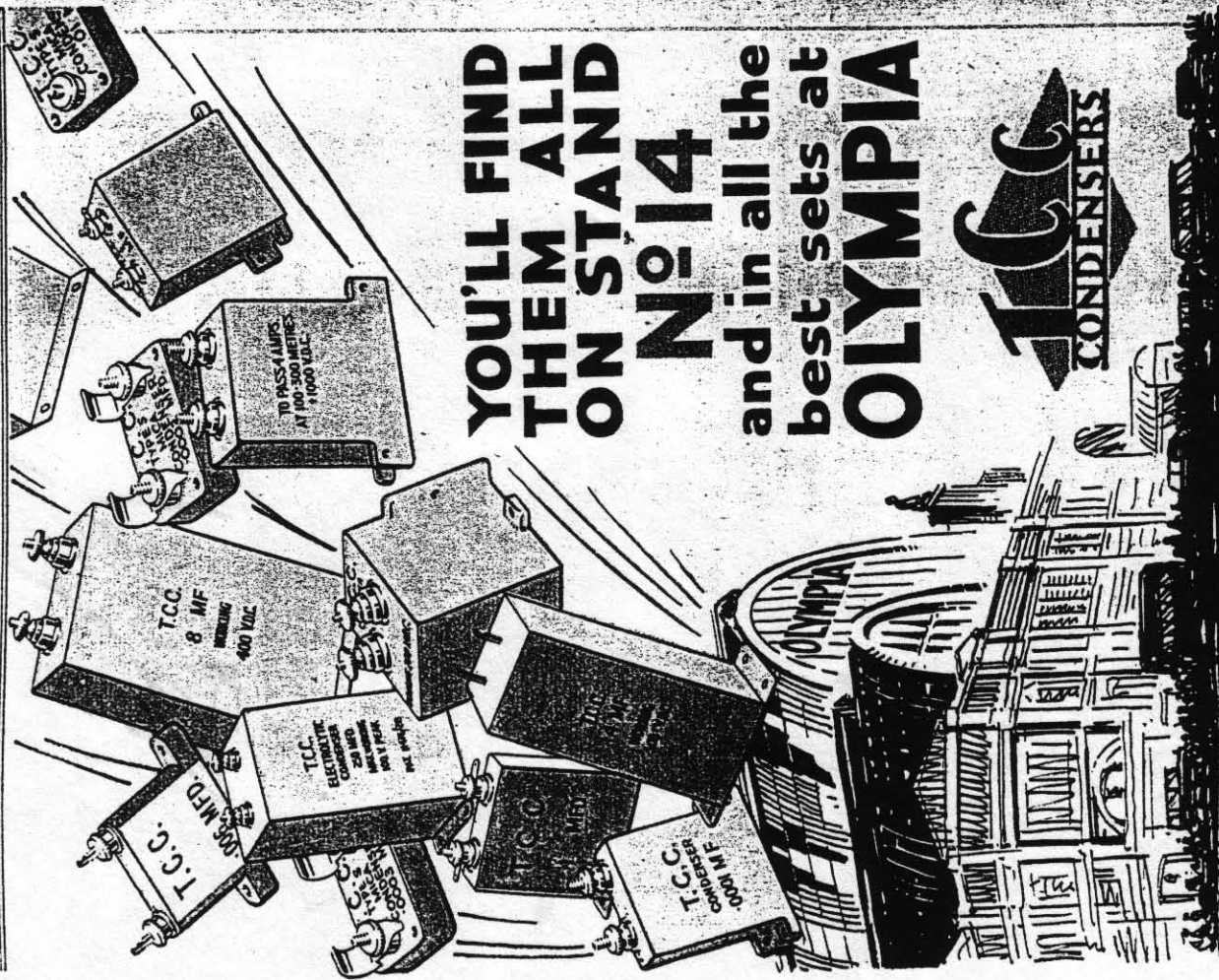
Front panel controls are R.F. gain, A.F. gain, main tuning, B/spread tuning, bandswitch, XTL on/off, phasing standby, N.L., B.F.O., A.V.C. mains on/off and phone socket.

Circuitry is standard for a single superhet, construction is 'very' solid, in fact this is one thing common to all Eddystone models. Block schematic is in this issue, P-4.

Solar cell operation - Jake Hall in Canada has been operating his EC10 Mark II from a solar cell array on the roof of his mobile home for 3 years now. The panels cost him less than 20 dollars and the construction but a few hours. Maintenance has consisted, so far, in cleaning sessions with warm soapy water every few months. The array is protected under a perspex sheet and sealed with flexible silicone sealant. His only mod was a 9V6 Zener Diode mounted in the battery box, a series 1 amp diode in the plus line from the solar panel, and fitting nicads in the battery box.

Hints - poor sensitivity, bad selectivity and poor tracking on a recently acquired 670A was traced by one member when he spotted scratches on dust cores of the I.F.T.s. A check was made and it was found that the I.F. was 10 K/cs low as a result, no doubt, of previous tampering by an uninformed owner. Doing a complete R.F. and I.F. alignment worked wonders and the 670A has a new lease of life.

Hints - drifting on a 680X, a check showed H.T. on local oscillator was high! Replacing the stabiliser valve cured H.T. problem. An on-air check tuned to W.W.V. showed that the drift problem was now cleared. Yes, the stabiliser VR150/30 can go low emission causing higher than normal H.T. on the stabilised line. Many people forget this.



YOU'LL FIND THEM ALL ON STAND No 14
and in all the best sets at OLYMPIA



LOOK FOR THE CONDENSER IN THE GREEN CASE

One of the Technical Committees' (Oct 1924, Wireless World, N. 218, p. 11-12) of the I.E.E. has stated that the 'Green Case' condensers are only accepted from firms who believe to be thoroughly reliable.

MODERN WIRELESS

August 1933

It's the valve that counts!



Users of valve receiving sets will do well to realise that the efficiency of their outfit is largely dependent upon their choice of valves. It's the valve that counts!

You will positively ensure the best reception of vocal and musical items by using

MARCONI VALVES
MADE IN THE OSRAM WORKS

Made with the same scrupulous care that has always characterised the manufacturing operations of the famous Osram factory.

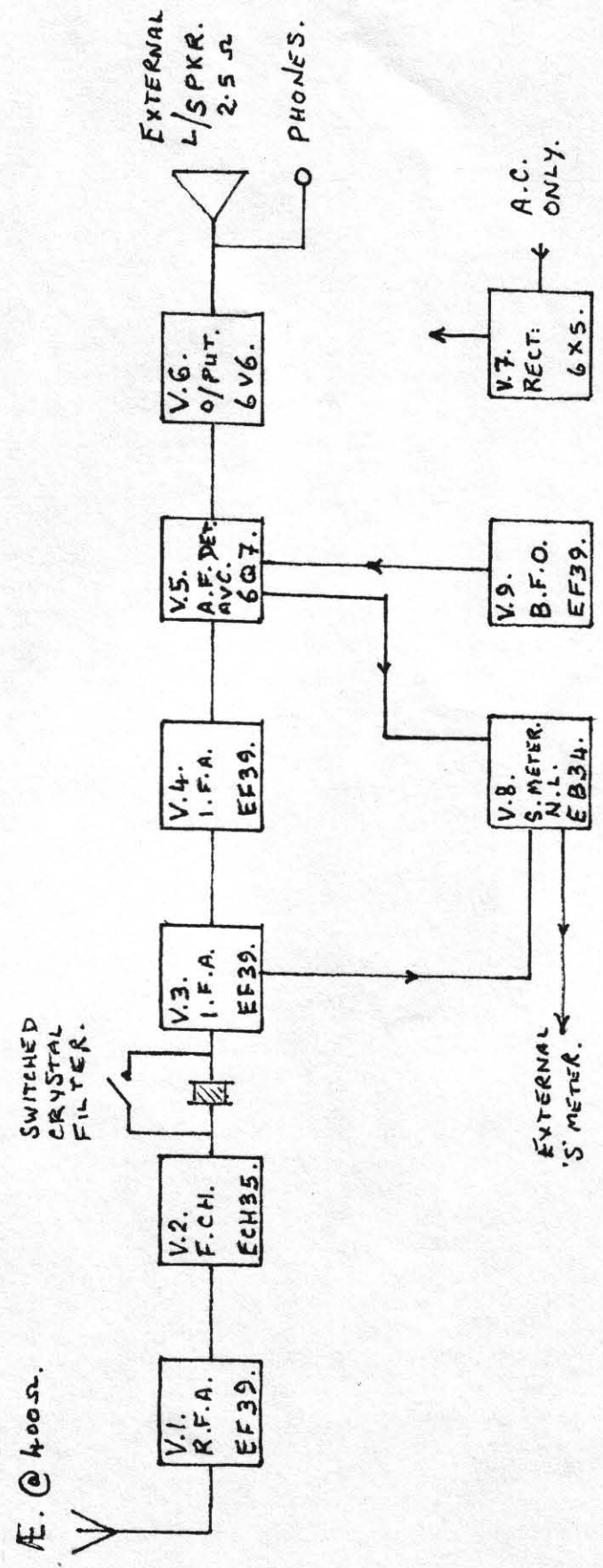
MADE TO LAST

Sold by leading Electrical Contractors, Wireless Dealers and Stores.

The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.
Branches throughout the United Kingdom and in all the principal markets of the World.

S.640 BLOCK SCHEMATIC.

- OUT 1947.



3 BANDS 1.7 mc/s TO 32 mc/s.

1. F. = 1600 kc/s.

AMATEUR BANDS MODEL, BANDSPREADING ALL RANGES.

Hints - if your receiver still seems okay after many years, remember performance drop is very gradual and unnoticed in normal use. Give yourself a big surprise, fit a new set of valves. They will not, and are not, meant to last forever. If you order a full set from one supplier try for a discount, or even free P. & P. They will often do this.

* SFERICS - we now have members in Norway, France, Holland, Belgium, Germany, Spain, Portugal, N. America, S. America, Canada, S.Africa, Irish Republic and of course the U.K. Literally an international group now, let's have some news from you, what receivers you have, what use they are put to, your servicing hints etc.

SFERICS - one member is having problems with QRM, breakthrough from a Community Radio Station close by his QTH. His solution suggested to others with a similar problem is a "rejector" filter in the aerial input lead. This is a parallel L.C. filter formed by an ex transistor radio, ferrite aerial coil and a 750 picofarad trimmer condenser. This is tuned for minimum strength of the interfering signal. The formula to use for other stations is:-

$$\text{Frequency} = 160 / \sqrt{L \times C}$$

Where L is in microhenries, C is in picofarads and frequency is in kilocycles. Most transistor ferrite aerials have an inductance of about 540 microhenries, a 250 picofarad trimmer will be fine with this for medium wave.

SFERICS - several readers with 830/9 receivers have found the microswitch operated on "narrow" position of selectivity switch is not connected to anything! This is because special 'piccolo' filters which were fitted for use by "you know who" had to be removed before disposal. Reference to 830/9 manual will help you to rewire as per original circuit.

SFERICS - a digression, the human brain produces as much as ten watts of electricity and that frequencies as low as 2 C/s and high as 80 K/cs have been monitored in different areas.

SFERICS - Someday, heaven forbid; a nuclear detonation up to one hundred miles distant could result in E.M.P. effect causing instant death to all semiconductor devices, the pulse from this would knock out all computer systems, telephones, radio stations, domestic radio and Hi-fi (except valve equipment), auto ignition systems and much hospital equipment. Most valve radios would survive, so vote "Hollow State". This no joke, above info; from a Canadian radio and electronics magazine stating info; was from the Canadian Government Bulletin.

Hints - Meters for servicing valve radios, use an AVO or other moving coil type not a modern, up to date, LCD semicon type. The high internal resistance of these types will give readings completely different from those in the manuals - which were taken with a 20,000 OHM/volt or 1,000 OHM/volt AVO.

Hints - B.F.O. operation on some models is too coarse for easy S.S.B. tuning, one cure is to open up your receiver, locate the B.F.O. variable condenser which is a 3 + 2 plate model. Using pointed nose pliers carefully 'tweak' off one plate each from rotor and stator, this will reduce total capacity swing and so total frequency swing. B.F.O. may need resetting to zero beat afterwards.

Subscriptions for 1991 are now due - please send them in soonest to ensure you get next issue! Due to postal increases etc. it is now £7.50. - £10.00 STERLING

* ALSO UNITED ARAB EMIRATES
+ DIEGO GARCIA ISLAND.

OVERSEAS.



Professor Leithauser, designer of the German 'People's Receiver', with the A.C. model of his creation, 1933

- DID HE HAVE ANYTHING TO
DO WITH THE "EDDYSTONE"
LOGO?

(WITH APOLOGIES TO EDDYSTONE RADIO &
PARTICULARLY TO CHRIS PETTIT.)

COLLECTORS.

One member who wrote in with his own personal Eddystone experiences is Mr. Blanchard, as a post office apprentice in the 50's he admired, but could not afford, an Eddystone. Being able to afford them now he has the nucleus of a small collection, a 640, 670, 680X, 770R and 870. The 640 is at present being restored, he also has several other makers' receivers.

Q.R.M.

A problem which does not, luckily, arise with our Eddystones - the owner of a WWI '1155' receiver, a 14 years old S.W.L., was in severe trouble with family and neighbours for causing QRM! When tuning up and down the medium wave band his receiver was causing heterodyne whistles on other domestic radios. Living in a block of flats, using an indoor wire draped around the room - when checked out the interference on a domestic radio in the next flat was 59+ Plugging in my '41A' Ex G.P.O. receiver and using the built-in meter, several things were checked. It was immediately discovered that disconnecting the aerial from the '1155' practically cured the problem. There was still an 53 reading on the '41A' at the high end of the m.wave - circa 1300 K/cs. when the '1155' was at the low end of MW. It was noticed that calibration was way out on the '1155' so the set was opened up. The A.C. power supply had been built in on the left hand side where the original D.F. circuits had been. The mains input lead was snaked through the chassis to a convenient hole at the rear. Seeing it was a two wire lead, and there was no earth connected at the rear, my thoughts went immediately to a re-run of the mains lead, at one point it was less than a half-inch from the local oscillator circuitry! Re-routing the lead as far as possible from the L.O. and aerial circuits and connecting an earth lead from cabinet to mains plug cured most of the interference. The small remaining QRM was on one domestic receiver some 18 inches from the extreme end of the length of wire used as aerial on the '1155', moving this wire to a distance of 5' from the domestic receiver effected a complete cure, no signal was now to be found on the '41A' even when placed alongside the '1155'. If you have an Eddystone 41A use it!

SFERICS - I recently discovered a 770R which, together with its associated panadaptor, was still in daily use in a workshop which specialised in reconditioning of P.M.R. type equipment. It is not generally realised that the EP17 and EP20 panadaptors can be used as wobulators and with the appropriate receiver both R.F. and I.F. alignment can be accurately carried out. The manuals for the panadaptors give details of how to do this.

S.O.S. - Please let E.U.G. have any information you may have as to where you have encountered Eddystones previously or still in use. All information for your newsletter, we need old literature and articles relating to the Eddystone Company and/or products. We can photocopy and return if need be.

Query - In answer to Mike of Dunstable, the callsign of the original amateur station at the Eddystone factory in Birmingham was G6SL. To the best of my knowledge it is still a current callsign.

LATE ADVERTS!

S.O.S. - EARLY MODEL EC958 - NO SUFFIX! MEMBER NEEDS COPY OF MANUAL, CAN COPY YOURS AT E.U.G. FOR HIM OR RETURN COSTS IF YOU DO COPYING, CONTACT E.U.G PLEASE.

S.O.S. - WANTED FOR 68CX. CRYSTAL PHASING KNOB, ALSO AEC TOGGLE SWITCH. RING. DON JANNICE. 071 239 1385 DAY - 04022 21224 EVENS.

999	Hoverswerda	Germany	20	531	Leipzig	Germany	100
999	R.Popular, M'nd	Spain	20	531	Oviedo	Spain	10
1008	Hilv sum-5 Fievo	Holland	400	540	BRT-2 Wavre	Belgium	150/50
1017	Wolfsheim	Germany	600	540	Soit	Hungary	2000
1035	Milan	Italy	50	549	Les Tremblas	Algeria	600
1035	Prog.3 Lisbon	Portugal	120	549	Bayreuth	Germany	200
1035	Tshisahulu, V'da	S.Africa	100	558	Espoo	Finland	100
1044	Burg	Germany	250	567	Berlin	Germany	100
1062	Kalundborg	Denmark	250	567	RTE-1 Tullamore	Ireland (S)	500
1071	Brest	France	20	576	Sechar	Algeria	400
1071	Bratislava	Czech	750	576	Stuttgart	Germany	500
1098	Bratislava	RSa	100	585	FIP Paris	France	8
1098	R.Bop, Ga-Rank'a	Germany	40	585	RNE-1 Madrid	Spain	200
1107	AFN via Munich	Spain	20	594	Frankfurt	Germany	400
1107	RNE-5 Barcelona	Spain	20	594	Muge	Portugal	100
1107	BBC-R1 Wallasey	UK	0.5	603	Lyon	France	300
1125	La Louviere	Belgium	20	603	Sevilla	Spain	20
1125	Stara Zagora	Bulgaria	300	603	BBC-R4 N' castle	UK	2
1125	BBC Llandrindod Wells	UK	1	612	Kiel	Germany	10
1134	Valencia	Spain	10	612	RTE-2 Athlone	Ireland (S)	100
1134	Zadar	Yugoslavia	1200	621	RTBF-1 Wavre	Belgium	80
1143	AFN via Stuttgart	Germany	10	621	VOA S'bi-Phikwe	Botswana	50
1143	Century R. Duolin	Ireland (S)	?	630	Vigra	Norway	100
1143	Kaliningrad	USSR	150	639	Liblice	Czech	1500
1161	Stara Zagora	Bulgaria	500	639	RNE-1 Almeria	Spain	20
1161	Strasbourg (F.Int)	France	200	639	La Coruna	Spain	100
1170	TWR Manzini	Swaziland	50	648	BBC Orfordness	UK	500
1179	Solvesborg	Sweden	600	657	Burg	Germany	250
1188	Kuurne	Belgium	5	657	R.Xnosa, Komga	RSA	100
1188	Wachenbrunn	Germany	5	666	Bodenseesender	Germany	300/180
1188	Szolnok	Hungary	135	675	Marseille	France	600
1197	VOA via Munich	Germany	300	675	H'versum-3 Lopic	Holland	120
1197	BBC-R3 Enniskillen	Ireland (N)	1	684	RNE-1 Sevilla	Spain	250
1197	BBC-R3 Bournemouth	UK	0.5	684	Beograd	Yugoslavia	2000
1206	Bordeaux	France	100	693	Berlin	Germany	250
1206	Wroclaw	Poland	200	702	Aachen/F'sburg	Germany	5
1224	Vidin	Bulgaria	500	702	Monte Carlo	Monaco	300
1224	COPE Madrid	Spain	20	711	Rennes 1	France	300
1233	Meinik	Czechoslovakia	400	720	Langenberg	Germany	200
1242	Marseille	France	150	720	Norte	Portugal	100
1251	Marcali	Hungary	500	720	BBC-R4 Lots Rd	UK	0.5
1251	Huisberg	Netherlands	10	729	RTE-1 Cork	Ireland (S)	10
1260	Valencia	Spain	20	729	Oviedo	Spain	50
1269	Neuminster	Germany	600	738	Paris	France	4
1278	RTE-2 Dublin/Cork	Ireland (S)	10	738	Poznan	Poland	300
1287	Litomysl/Liblice	Czechoslovakia	300/200	738	RNE-1 Barcelona	Spain	250
1298	BBC Orfordness	UK	500	747	Hilv sum-2 Fievo	Holland	400
1305	Rzeszow	Poland	100	747	Gobaos	Nembia	100
1314	Kvitsoy	Norway	1200	756	Brunswick	Germany	800/200
1323	R.Moscow via Leipzig	Germany	150	756	BBC-R4 Redruth	UK	2
1332	Rome	Italy	300	765	Sottens	Switzerl d	500
1341	BBC-Ulst.Lisnagarvey	Ireland (N)	100	774	BBC-R4 Ennisk'n	Ireland (N)	1
1350	Nancy/Nice	France	100	774	RNE-1 Caceres	Spain	60
1359	Berlin	Germany	250/100	783	Burg	Germany	1000
1368	Manx Radio, Foxdale	I.O.M.	20	792	Limogss	France	300
1377	Lille	France	300	792	Sevilla	Spain	20
1377	Sandlane	Swaziland	50	801	Munich	Germany	420
1386	Kaunas	USSR	1000	801	Castellon	Spain	5
1395	R.Tirana via Lushnje.	Albania	1000	310	SER Madrid	Spain	20
1395	Alicante	Spain	2	810	BBC-Scot.W'glen	UK	100
1404	Brest	France	20	828	Hanover	Germany	100/5
1413	BBC via Masirah Is.	Omar	1500	837	Nancy	France	200
1413	RCE Zaragoza	Spain	20	846	Rome	Italy	540
1422	Alger	Algeria	50/25	855	Berlin	Germany	100
1422	Heusweiler	Germany	1200/600	355	Murcia	Spain	125
1431	Dresden	Germany	250	864	Paris	France	300
1440	Marnacn	Luxembourg	1200	373	AFN via Frank't	Germany	150
1440	Damman	Saudi Arabia	1800				
1449	Berlin	Germany	5				
1449	Squinanzo	Italy	50				
1467	TWR Monte Carlo	Monaco	1000/400	373	R.Ulster,Ennisk'n	UK	1
1476	Wien-Bisamberg	Austria	600	382	BBC-Wales	UK	70
1485	AFN	Germany	1	891	Algiers	Algeria	600/300
1494	Clermont-Ferrand	France	20				
1494	Leningrad	USSR	1000	900	Milan	Italy	600
1503	Stargard	Poland	300	918	R.Intercont. M'nd	Spain	20
				927	BRT-1 Wolvart'm	Belgium	300
1512	BRT Wolvartem	Belgium	600	336	Bremen	Germany	100
				936	Agadir	Morocco	600
1521	Kosica	Czechoslovakia	600	945	Plaven	Bulgaria	30
1530	Vatican Radio, Rome	Italy	150/450	945	Toulouse	France	300
1539	Mainflingen	Germany	700	963	Pori	Finland	600
1566	Sarnen	Switzerland	300				
1575	Burg	Germany	250	963	Paris	France	8
1575	Genoa	Italy	50	372	R.Botswana	Botswana	50
1584	Pamplona	Spain	2	372	Hamburg	Germany	300
1593	Langenberg	Germany	400/900	981	Alger	Algeria	600/300
1602	R.Onteniente	Spain	2	990	Berlin	Germany	300
1611	Vatican Radio, Rome	Italy	5	990	BBC-Redmoss	UK	1
				990	BBC-Tywyn	UK	1

LIST OF M.W. BROADCAST STATIONS SENT
 IN BY A MEMBER, NOT COMPLETE LISTING
 BUT MOST SHOULD BE RECEIVABLE IN THE
 U.K. WITH A GOOD AERIAL, - AND PATIENCE!

Hint - Hindsight can be frustrating! This was Alex Pines experience, who swears never to be caught out again (Ha!) Whilst doing a much needed cleaning job on his 770R he inadvertently let loose the drive cord, not having the manual he spent five frustrating evenings trying to re-string the 770R. When the manual did arrive it was a three quarter hour job. He ruefully advises that before even putting a finger inside he will, next time, draw a diagram of the routing for the drive cord system. I second this as even now after having re-strung many models over the years, it can still be time-consuming. The worst in my experience is the 640 with two separate drive systems for bandset and for bandspread. If too much tension is put on either one slight distortion of the concentric pointer drives can cause backlash on tuning.

S.O.S..... Member Doug Bishop was a member of an original Eddystone owners club. This was in 1933! Hopefully he will put pen to paper and let us know more. At age 72 he no longer has a receiver, but would like an inexpensive short-wave Eddystone. Can anybody help? Remember he is a pensioner. Address is 17 Russel Street, Bath, Avon, BA1 2QF

S.O.S..... Wanted EP961 panadaptor. Can collect anywhere in U.K. Good price paid. Write Sam Rees, Box 5347, Ras Khaimah, United Arab Emirates.

S.O.S.... Wanted Eddystone H.F. receiver, good condition, good price paid. A Jones, 14 Holmewood Street, Runcorn, Bisbane, Australia 4113.

S.O.S.....Wanted 940, 840C, 770R, 730/4 and panadaptor in good condition. Alan Clayton, 6 Albert Road, Bunny, Notts. NG11 6QE. Tel: 0602 212857

Sample of four most common faults found on total of 140 receivers over 20 year period:-

<u>Sample Total</u>	<u>Model</u>	<u>Faults</u>
11	640	<ol style="list-style-type: none"> 1. 6V6 output stage, kathode resistor gone high, kathode bias electrolytic dried out. Leaky grid coupling C50, wire insulation V.5 anode to C.50 cracked and leaky. C.52 anode 6V6 leaky. 2. Freq. changer low emission, no oscillation H.F. above about 15 M/cs. 3. N.L. and S. meter non-operative. EB34 has open circuit heater. N.L. switch contacts dirty. 4. A V.C. non-operative, C20 leaky, or more usually C.62
8	670A	<ol style="list-style-type: none"> 1. UL.41 open circuit heater or heater-kathode short. (Use 10P13) 2. UCH.42 low emission non-osc. at H.F. or sometimes microphonic due corroded/loose socket. 3. Top section dropper (230-200v section) gone open circuit. 4. Thermistor loose wire ends, intermittent open circuit.

<u>Sample Total</u>	<u>Model</u>	<u>Faults</u>
14	840A	1, 2, 3, as for 670A 4. Leaky smoothing E'lytics.
6	EB35	1. No F.M. local osc. transistor dud replace 2. Corroded contacts in battery box. 3. If volume pot; noisy, usual cause is leaky C80, 10MF E'lytic, replace pot; and condenser. 4. Dial bulb O/C
22	770R/U	1. V2 low emission 2. V1 " " 3. Jamming turret switch mechanism. 4. Intermittent contacts, turret coils.
12	740	1. EB41 o/c heater. 2. ECH42 low emission, non-osc. at H.F. 3. A.V.C. condenser C.42 leaky. 4. EZ80 O/C heater.
9	750	1. ECH42 low emission 2. D77 o/c heater 3. DH77 o/c heater. Microphonic due dirty pins/socket 4. Drifting due low emission VR150/30
11	830	1. EB91 o/c heater 2. Smoothing E'lytics, leaky. 3. Freq; changer non-oscillating at H.F. 4. Drifting, low emission VR150/30
8	EC10	1. Push button mechanism, 2. Transistor local OSC non-operative due low battery volts, low output P.S.U. 3. A.F. gain pot; noisy. (see EB35) 4. Wavechange switch contacts corroded.

<u>Sample Total</u>	<u>Model</u>	<u>Faults</u>
3 + 8	680/X	1. Local OSC, non-operative - low emission. 2. A.V.C. condenser leaky. 3. VR150/30 low emission. 4. Smoothing E'lytics, leaky.
5 + 7	888/A	1. Local OSC, as for 680/X. 2. N.L. valve heater O/C. 3. VR150/30 low emission, causing drift. 4. Smoothing E'lytics, as above, 680X.
16	940	1. V7 EB9L O/C heater. 2. Wavechange switch contacts dirty. 3. 6AJ8 low emission. 4. Selectivity switch, coupler grub-screws loose.

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That's all for this month. Remember - this is the last issue of our first year - your subscriptions for year two are due. Please send any criticisms also.

To all those who have already paid up - many thanks.

To those who send their compliments for the newsletter - thanks also.



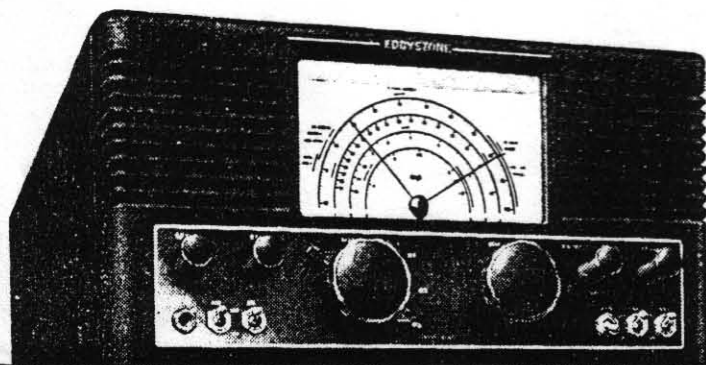
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