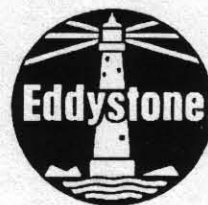
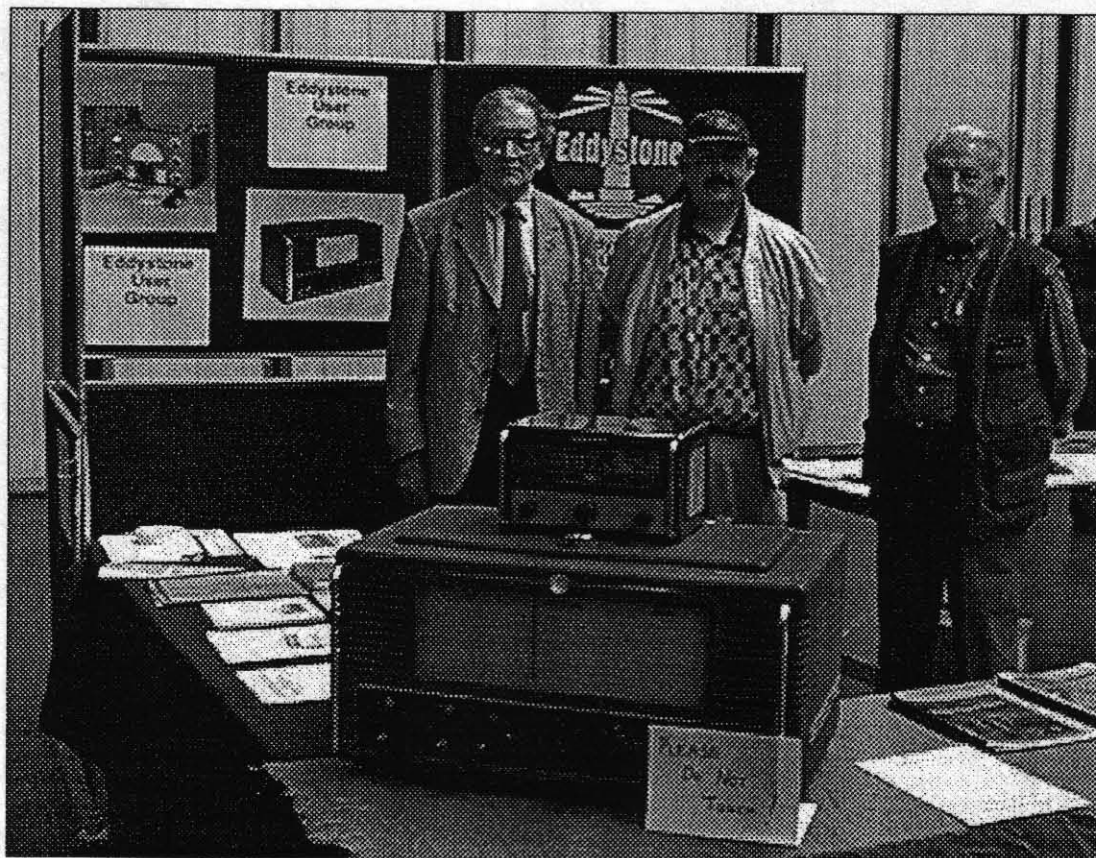


# Eddystone User Group Newsletter



Issue No: 49

June 1998



The EUG stand at the Vintage Fair, NEC, Birmingham on 10<sup>th</sup> May 1998

Manning the stand were (left to right) Ron G8URU, Chris GØEYO, Graeme G3GGL and Simon G8POO who is not visible as he took the picture.

The 'photograph' was taken with an EPSON PC600 Digital Camera and was then printed directly using a computer and laser printer. No film was required.

- A non profit newsletter for Eddystone Users
  - Compiled and edited by Ted Moore
- Information quoted from Eddystone Literature by kind permission of Duncan Whittle, Managing Director of Eddystone Radio Limited
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## Frontis

Well another newsletter heralding in another year for the EUG. This one sees a change of format and front page and is the first to be printed commercially.

Graeme, Ron, Simon and myself had a very successful day at the NEC on the 10<sup>th</sup> of May, representing the EUG at the National Vintage Communications Fair. This annual event has now become a regular venue for members to renew their subscriptions to the EUG. It was good to see so many old faces and thanks for all the kind comments you made about my support for the EUG when Managing Director of Eddystone.

There was a great deal to see at the NVCF. I took the opportunity chat up some old friends and was pleased to see that Howard of Centre Electronics had managed to find himself a couple of Eddystone receivers in very good condition, including I believe a rare Stratton 700 or the IMR equivalent. We borrowed the Stratton 700 from Eddystone to show on the stand and a good number of members stopped to have a good look. I took the opportunity to purchase Volume 2 of Wireless for the Warrior from Geoff Arnold. This really is an excellent book for anyone interested in British military radios as it covers all the Standard sets of WW2. The show had many examples of Eddystone sets for sale and although some seemed a bit pricey, many were good value. Simon took some pictures of Ron, Graeme and myself in front of the EUG stand using a digital camera and e mailed them to me a couple of days later. I was able to print them on my new colour printer and it is amazing just how good the quality is from these new systems. I don't think it will be long before the EUG has a Webb page of its own.

I am now working full time again, and in a couple of days time will be flying off to Dubai to represent my new company on a project, I expect to be away for about a week, by which time this newsletter will probably have been sent off to the printers.

## Subscriptions

Subscriptions are now £12 per year UK and £15 per year overseas. Metal EUG badges are available at £2 each (£3 overseas). Any remittances for subscriptions, badges or manuals must be by cheque or money order and in sterling. Make your cheques payable to **Eddystone User Group**.

Chris Pettitt -(GOEYO)  
(ex Managing Director) (home e mail [GOEYO@compuserve.com](mailto:GOEYO@compuserve.com))

Okay, so it is the start of YEAR NINE for us in EUG, but many of you will not be getting a Newsletter this time. Those who have paid for the current year will be reading this, those who have not bothered to send off their subs will be deprived of the N/L because we cannot afford - with the new commercial printing operation - to send out N/Ls on spec; in the hope that subs MAY come in.

The EUG stand at the NEC was manned by the usual stalwarts with Graeme and Chris helped out by such as Simon and Ron. A good time was had by all with many personal QSOs being made with other EUGers, and non EUGers. Bill Cooke of our own Cooke's Report was there with his XYL. Thanks for turning up Bill.

The central - and eye-catching - item on display was the S.700. This 1½ times normal size model was on loan from the Factory courtesy of the new MD. It is a rarely seen model & always good for generating conversation. Graeme will be recounting his own version of the 'Day at the NEC' elsewhere in this N/L so I shall leave further details to him. Thanks from us all must go to Simon for the use of his digital camera which has taken piccies for us of the EUG stand. Thanks Simon, G3P00, nice to have you on board.

Info fed back from Graeme re the ballot for A4 or A5 format in future does appear to favour the existing A4 format. All I have to do is to ensure that it is all READABLE in future. So herewith my personal apologies for the poor legibility of the Members Ads page in the last issue. Don't shout at the others, just ME.

With the help of Christine we got the other half of the Blue Print register which means we now have all that portion covering the Valve Era. I am well on with putting it all onto floppy so that we can offer copies to any interested EUGers. It will come to some 36 pps in all so will be the equivalent of a complete N/L for cost and postage, when ready I shall let Graeme have the master so watch this space please, but don't jump the gun and start pestering Graeme NOW, just adds to his admin work.

There have been a number of requests for the Featured Model for this issue but the winner appears to be the S700. This is a one and a half times normal comms receiver and there are very few of them around, although many did get made in various guises for Marconi Companies.

Time to let you get on with the nitty-gritty of this issue, hope that you enjoy it, a lot of work has been done by the many volunteers, not forgetting those who did the packing and posting at Graeme's QTH - thanks everybody. Please don't organise together into a Union !

The timing stays the same for members adverts for each issue, make sure they get to us before the end of the month prior to publication of your Newsletter since I send my copy off to Graeme on the FIRST day of that month for printing. You may advertise anything radio related, but we prefer stuff which will interest other EUGers. This gives some latitude as I know of EUGers who collect anything from Dictaphone cylinders to Classic cars, by way of Postage stamps and old Penny farthing bikes. If you want to swop it for an Eddystone then it is Okay.

Just no semi-detached houses or country estates with land for aerial farms.

- - - -  
- Twentieth Century Antiques -

If any of you EUGers subscribes to Country Life Magazine then you will note that the April 30th issue contains a full article entitled as above.

The items listed, and considered to be "Twentieth Century Antiques" are,-

A Braun 1957 Record Player sometimes called the 'Snow White's Coffin'.

The Braun KM Kitchen Machine.

The Porsche 911.

A Tubular, All-glass, Table Lamp.

A common or garden, Tubular Metal Chair.

The Piaggio, Vespa Scooter.

The article goes on to suggest that in no time at all we shall see Christie's or Sotheby's advertising for sale a private collection of 'Pre-IBM PCs', or the like.

My choice, although I am admittedly biased, would be for a fine collection of mint Eddystone Valved Receivers.

I would like to see a line-up of pre-WWII models, a set of the rectangular and slide rule dial models such as the 504 through the years to the 940, with maybe the ginormous S700 in the middle.

Collecting Eddystones has become, of recent years, quite an 'In' thing to do. Almost certainly we EUGers have some responsibility for this, making our prized possessions into what are now called 'collectibles'. That prices should spiral upwards is inevitable, and yet, there are still bargains to be had. Some EUGers do advertise sets for sale at regular, fair prices. Look out for the Member's Ads and do not hesitate, pick up the 'phone. Ted.

- - - -  
- Saga of a 1004 -

Daniel was able to buy his 1004 several years ago from a retired and impecunious embassy 'wallah' who had gambled on Lloyd's and lost.

Whilst in very good condition when bought, and having performed well over the past two years, the 1004 was now showing age-related problems. The very large format, twin, 7500 muffs smoothing condenser was worse than useless, dried out and showing almost no capacity when tested.

To make things worse, when switched off on the front panel switch the receiver audio output increased to a very high level accompanied by some horrendous background noise. This was followed by - at first - a kick down towards zero of the meter needle, followed by a rapid kick up to full FSD before slowly dropping down to zero as the audio died.

Strange happenings indeed considering that the smoothing e'lytic was as dead as a Dodo.

After much searching a modern type 10,000 + ditto muffs was obtained, smaller format than the original but it could be made to fit neatly in place of the old one.

The horrendous level of mains hum was now eliminated but the rise and fall, then rise and fall again, syndrome still existed. It was possibly somewhat more exaggerated now that the new condenser was fitted. So - mind games time - what was causing this. The change in audio was mirrored by the operation of the meter on 'Audio Level' but not on 'Supply Check' so evidently, since the Supply Check position read the 12 volts supply, this was not where the problem originated.

Next step was to check out the 11 volts regulated, and the 9 volts regulated supplies, to see how they varied at switch off time - compared with the fluctuating audio level. An analogue multi-meter of the 50s era, a Taylor meter, was used. In the case of the 11 volts supply, at switch off it simply died down to zero - Normal.

The 9 volts supply showed a very slight, almost indiscernible fluctuation downwards, back up to nine volts, and then the normal drop to zero - Not so normal.

After a study of the circuit diagram included in the manual it was decided that the next thing to check was the AVC lines.

Lines, plural, since there are separate IF AVC and RF AVC lines. The IF AVC circuitry is fed from the +11 volts supply and so, as expected there was nothing out of order shown here. The RF AVC line is, however, fed from the +9 volts supply and here there was a discrepancy in the readings. The supply voltages to the transistor, part of IC1, were lower than per the table given in the manual. With only 2 volts on the collector in lieu of the stated 4 volts, and correspondingly low volts on the base, there was definitely something wrong here.

A check on the transistor itself, pins 12,13 & 14 of IC1 showed a considerable amount of leakage between collector and emitter. Replacement ICs of the specified type may be available but none could be found. A solution was to snip the pins of the IC, numbers 12, 13 & 14, close to the plastic case. A type BC107 was then wired across the jutting out, but chopped off, pins where they entered the PCB.

The receiver was again powered up and 'VOILA' - the fault was cleared. Whilst not pretty, the repair is neatly done. It will suffice until such time as a CA3046 multi-transistor IC can be obtained. One has been promised but is not expected in the near future so - with the jury-rigged BC107 the receiver is back in daily use.

What was apparently happening was that the RF AVC stage was mal-functioning all of the time, but this had not been noticed in normal operation, maybe it was masked by the operation of the IF AVC circuit. The malfunction only became noticeable when the power supply was turned off. Daniel.

- - - - -  
- Improving the 870 -

No, no mods to the set, nothing like that. The 870 whilst a simple 4+1 superhet gives as good an account of itself as one could hope for or expect.

The improvement to be made, is made, externally. By matching of the aerial in use, to the receiver aerial sockets.

Really anything over about a 10-15 foot wire connected to the 'A' socket, with a mains earth, will cause overloading on the stronger signals. From the QTH near Orfordness the BBC signals can be found in several places on the scale even with a 15 foot random wire.

What is needed is some way of both matching the aerial to the receiver AND of limiting the strength of the stronger signals picked up, by the time that they reach the first valve stage.

The aerial in normal use with the 870 is a random wire of about 45 to 50 foot. It no longer goes directly into the 870 but now goes via an 'L' format Aerial Matching Unit.

A switched 12 turn coil in series with the aerial goes to the receiver aerial socket. From the receiver end of this coil is connected a 350 pF variable condenser with the possibility of having a further 220 pF fixed condenser switched in parallel for the lower bands. The results are quite spectacular when checks are made with and without the AMU in circuit. With the aerial in use, the values stated, and a 5 position switch used across the tapped coil, the AMU can produce quite sharp peaks on bands from about 650 Kc/s to about 12 Mc/s. This covers almost all the bands in use at this QTH and for one afternoon's work using junk box items nothing more could be asked.

Checks with an RF Probe on the 'scope, across the aerial and earth connections, when the set was not connected, showed in excess of 700 millivolts, peaking occasionally to over 1 volt of RF. This was a product of ALL the RF being picked up by the external aerial. Checks on the output of the AMU, again without the receiver being connected, showed no broadband signals over about 100 millivolts except for the one signal from Orfordness on 648 Kc/s. This is considered acceptable and is a big improvement on previous results. Peter.

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- FM on the EB35 -

It seems that an increasingly common failing with this model is for the FM band to just 'die'. Sometimes this will happen whilst the set is not in use - No FM when switched on. Other times the FM signal will slowly die out, sometimes coming back on for a while after the set is turned off and then back on. Tom has this on his EB35 and hence the following.

In the days when the EB35 was designed there were not many of the QRO (hi-power) FM stations on the air. Nowadays the FM band is choc-a-bloc with QRO signals and some of them may originate from stations nearby where you live. The high level of RF coming into the FM tuner may have a bearing upon the frequent failures or it may be static strikes from more natural causes. Whatever it is the fault is often to be found in either the first or second tranny in the Mullard FM Tuner unit.

This is not an easy unit to repair, first off you need to get inside it ! NOT EASY unless you have a heavy duty soldering iron to unsolder the 'lid'.

Once inside the circuitry is pretty standard for the era (the 60s). The two trannies can be identified from the picture in the booklet of the EB35. The duff one is almost always S/C internally and this can only be done by lifting a leg, the emitter, from the circuit board. When identified the one, or both, may be replaced with modern transistor types, PNP only.

Many successful repairs have been completed using the quite common BC212 general purpose tranny. Whilst made for switching purposes in digital equipment this tranny functions quite happily up to the top end of the VHF/FM band as either an oscillator or RF amplifier device. It also has the advantage of more modern construction and quite miraculously I have never come across a BC212 which suffers from the dreaded 'whisker syndrome'.

The '212' is a complementary Ge type for the BC182 Si type and so these two types have even been used to replace the output trannies type AC127 in the AF stages of an EB37. Alan.

- - - -

- A Testing Time -

When the station receiver suddenly goes O.T.A.- especially if it is the ONLY station receiver - then panic sets in. One's favourite SW stations are lost, maybe the wanted programme is missed out on and one has to make do with the XYL's Soap Machine.

In this instance Tim was listening to the 830/9 when signals simply disappeared, leaving nothing beyond the faint background noise. A quick twiddle of the aerial lead brought no response and so the set was removed from its case for a check. All valves appeared to be lit-up, the AF stages were live as a touch with a finger proved. Some poking around with the end of a Bic pen brought crackles, and a momentary return of signals when in the area of the linking coax which is used internally for the switching from L.O to EXT VFO operation. Closer scrutiny of this area showed that the ends of the short coax lead were badly corroded and there was a slimy green residue (GREEN GOO - Ted) surrounding the end of this coax lead.

Since the actual centre conductor appeared to be in good condition and since there was continuity of the outer screen, a check was made for leakage. After dissing the ends of the coax a digital ohmeter was used across inner and outer, several hundreds of ohms only which varied as the conductors were manipulated ! This meant a replacement length of coax had to be cut and prepared. After the old piece was removed, and before fitting the new, every trace of goo was removed from the tags at both ends, using switch cleaner fluid.

When the new piece of coax was fitted and the set was replaced and powered up the operation was back to normal. This has been the only problem so far in eight years of operation with the 830/9, although a previous owner had re-valved the entire receiver. Tim.

- - - -

- Thunderstorms -

Several letters in the mail this past week re damage to

receivers by thunder/lightning strikes. In deepest Devon Ron has lost the amplifier stages of his Datong Active Antenna due to a fairly close strike which also damaged the domestic Hi-Fi tuner. In Bedfordshire John reports that his 960 has expired after being left connected to a 270 foot long wire during recent stormy weather. He has some spare OC trannies in stock and will report when the repair job is complete, this is likely to be after his summer holidays. Ted.

- New Year and New Info -

Another NEW year for us with this issue and also the new printing source comes into effect. Packing and posting will be through the goodwill of Graeme and his extended family.

I have used this N/L to impart to you all some of the surprises coming out of the second half of the BP Register.

Surprises indeed, in that I have had to seriously revise my own ideas about some models. Details have come to light of /x versions of several models. Models that, to my mind, had been fully documented many years back.

Some new models too, new to us that is. And definitely a lot of date revisions.

The BP Register as it has come to us is on A3 size photo copies which betray the tattered and dilapidated state of the original Register.

Okay then let's see what we have come up with now, old as regards time but NEW to us. How about,-

BP 107 and 107/1 of August 1932, a General Purpose Heterodyne Wavemeter.

BP108 and 108/A of the same date, a Dynatron Oscillator, wiring and circuit details.

BP109, 109A, 109AR and 109R again of August 1932 for a Three Band Two (receiver). Wiring and circuit details and revised wiring and circuit.

BP123A of August 1932 for a T.P.T.G. (tuned plate/tuned grid) transmitter.

BP160 of December 1933 for a DC Eliminator (why eliminate the DC ?).

BP177 through 184 of 18 September through 23 November 1933, all for Die Castings for the All Wave Four receiver, pretty advanced stuff for 1933 !

BP191 of 9 November 1933, wiring diagram of a Buzzer Wavemeter.

BP194 and 195 for a Five Metre Receiver, wiring and circuit details, on 29 October 1933.

BP215 and 216 of 29 March and 4 April 1934 both for a 5 Metre Split Colpitts Oscillator with Pentode Modulator, circuit and wiring.

BP228 of 3 May 1934, for an AC Eliminator, (if you eliminate the DC and the AC what is left ?).

BP233/1 and 233/3 of 14 June and 21 September 1934, first for Fitting New Coil Unit to The 1933 Overseas Four and second for the 1935 AC Sphinx Receiver, circuit. (what links these two models on the same BP number ?)

BP249 of 19 October 1934, the Eddystone Type 973 Disc Drive, drilling template.



BP251 of 3 April 1934 for an AC Heptode Convertor.

BP258 of 31 July 1935 for a 5 Metre Transceiver, with switch connections.

BP265 of 3 August 1935 for a Telescopic Aerial, pictorial view for Catalogue.

BP268 of 1935 for an Ultra HF Transmitter for 120 - 50 Mc/s using parallel inductance lines.

BP286 of 28 January 1936 for a 1936 Mount Everest Transceiver, circuit details.

BP330 to 333 of 23/25 September 1936, for the Rhodesian Type Transmitter, both pictorial view and circuit details.

BP338 of 5 April 1937 for a 1937/8 Six Valve Five Metre Superhet Receiver.

BP363 of 1938 for a Miniature Amateur Station, complete assembly details and circuits.

BP380 of 18 August 1938 for a Cathode Ray Oscilloscope circuit details and method of connecting up.

BP407 through 424 of 1940 for the S.229, the Polish Transmitter, three racks and all wiring and circuit details plus rack and panel numbers. (as mentioned by Bill Cooke in his memoirs).

BP440 of 1941, a Map of West Heath, (when they got bombed out of their Factories and moved to the BathTub).

Then follows many BPs listing all the S.358/400 details and the S.440/450 details going from 1941 through 1948 with various versions for land/marine mobile use.

BP569 of 26 February 1946 the circuit of the S.556 receiver for export. (first of the modern 'type' Eddystone).

BP590 of 10 September 1946 for the Everyman Two Transmitter with circuit details (nice new one !).

BP599 of 29 January 1947 for a VHF Equipment for South Africa, another version of the 440/450.

BP690 of 24 March 1948 rack mounting details for S.640 Receivers.

BP726 of 7 September 1949, this for a Special Test Oscillator for 2.9 and 67.675 Mc/s, theoretical details (special for what ?)

BP751 of 31 May 1950, for a Muting Unit for use with the S.680/2A, theoretical circuit.

BP780 of 20 November 1950, and we have the S.680/3 with Receiver Output details and circuit. (new to me).

BP794 of 20 February 1952, for the S.750/2 alias the marconi HR100, theoretical circuit.

BP797/798/805/806/807 of 4 June 1952 through 27 January 1953, we have the S.700 alias the IMR54 (Marconi) alias the LMT3321C, pictorial views and circuit diagrams. (LMT who ?).

BP834 of 16 October 1953 for an AP.56952 design for video with wiring and circuit details.

BP876 of 18 January 1955 for a Modified S.680X for Crystal control.

BP879 of 15 April 1955 for the S.680X/AM89S(? poor copy here).

BP909 of 13 July 1955 for a Mobile Transmitter Type 900.

BP920 of 10 April 1956 for a BBC FM Receiver Type HR/20, type 820 Mod; theoretical circuit.

BP949 of 19 February 1957 for an Eddystone Two Valve Receiver, theoretical circuit.

BP962 of 29 January 1958 for a Radio Sonde Receiver Type S.901, theoretical circuit.

BP1010 of 13 June 1960 of an Electronic Keying Unit Mark II, theoretical circuit.

BP1044 of 1961 for a Video Unit type LP2656, theoretical circuit.

BP1037 of 23 October 1962 for an S.940 modified for Crystal Control, with theoretical circuit mods;

BP1086/1087 of 19/20 June 1963 for the E.S.U Sideband Unit type S908, both theoretical circuit and selectivity curves.

BP1129/1130 of 9/20 April 1964, for the FSK Unit S925 and 926 with theoretical circuit and instructions. (H5011 Marconi)

BP1175 of 15 October 1965, for a Block Schematic of RAMAC SSB Receiver for USB.

How is that for New To Us Gen ? Some of this has been known to me at least in parts but never with so much info and with BP numbers and dates to match it up. Enough here to keep even the most hardened EUGers occupied for a while.

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- Receiver Prices -

This subject has come up before but it is a common topic in your mail so here goes, again.

If you are selling to a dealer then you will only get a low price, maybe half of what you will get by selling the set directly yourself. Why ? well he, the dealer, will naturally want to make his profit and so quote you a much lower price than market value. Some of the more unscrupulous types will go on about YOUR set being a very common model, not being very rare, not being much in demand. You may accept all of this blarney and then see the same set advertised for double in a few weeks time. Before approaching to sell it, ask the dealer about buying one, your model. Ask him how much it will cost you - not letting on of course that you have one for sale. then and only then tell him you have one FOR SALE.

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- Paper Dielectric Condensers -

Long before these old paper dielectric condensers go leaky enough to cause a total cessation of signals they may be causing quite insidious performance problems on your classic valve type receiver.

Perhaps the most common is where the leakage of such a condenser in a very high impedance circuit such as the AVC or the AF to Output stage coupling, can reduce performance to such poor levels that one begins to wonder whether the problem is with the receiver or with the operator's ears.

Again in a high impedance screen circuit the decoupling condenser can have sufficient leakage to completely ruin a valve's performance, by dropping the screen volts to a very low level.

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## Abridged Catalog

This publication contains abbreviated data on the current range of communication receivers marketed throughout the world under the Eddystone trade name. All Equipment is built to exacting standards and special versions are produced in large numbers to satisfy the stringent demands of many organisations including the Ministry of Defence, Ministry of Posts and Telecommunications and Broadcasting Authorities in the UK and overseas.

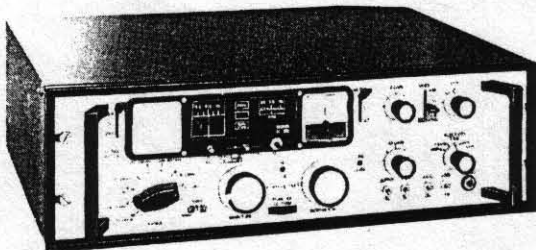
The Company has full British Government approval for manufacturing to the DEFENCE STANDARD 05—24.

Only those variants with general appeal are included here, but enquiries are invited for any specific requirements in the general range 10kHz to 500MHz.

Most of the equipment listed can be supplied for either bench or rack-mounting, and is also available with anti-vibration mounts. Matching plinth or cabinet speaker units, telephone headsets and aerial equipment (including special types for VHF/UHF) will be found in our standard range of accessories. Comprehensive Data Sheets on all receivers etc. are freely available on request.

As we are always seeking to improve our products, the information in this document gives only general indications of product capacity, performance and suitability, none of which shall form part of any contract.

### High-Stability Communication Receiver Model EC958



The basic model of the EC958 Series is illustrated. A narrow-band dual-conversion drift-cancelling loop is utilised on all versions to provide long-term stability of the order 20Hz in the band 1.6—30MHz. High-resolution frequency scales are employed and complete frequency setting is achieved with a maximum of two adjustments after range selection. All models except EC958/1 and EC958/2 can be equipped with integral FSK facility.

**Frequency coverage:** 10kHz to 30MHz  
in ten overlapping ranges

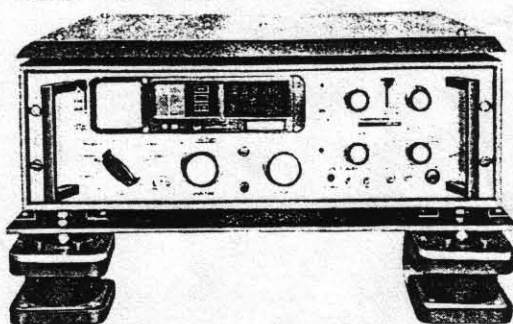
**Reception modes:** CW-MCW-AM  
(DSB)-SSB (A3A, A3H, A3J upper or  
lower sideband). FSK capability with  
optional module fitted internally

**Sensitivity:**  
AM:  $3 \mu V$  for 10dB S/N (3kHz B/W)  
CW/SSB:  $1 \mu V$  for 10dB S/N (3kHz B/W)

**Power supply:** AC: 100/125V or  
200/250V (40—60Hz). DC: 12V or 24V  
with external DC/AC Converter  
(Eddystone Type 978)

**Dimensions (Cabinet Version):**  
Width: 502mm (19.75in)  
Height: 165mm (6.5in)  
Depth: 457mm (18in)  
Weight: 22.7kg (50lb)

## High-Stability Communication Receiver Model EC958/7E



Shown with optional extras—Shock mounting and drip proof cowl

Model EC958/7E provides a higher order of stability and incorporates a number of detail improvements which extends its usefulness in many applications. A feature is the digital display of the received frequency reading to 1Hz. Utilisation of some standard EC958 modules and sub-units in the EC958/7E simplifies spares holding for establishments using a number of receivers of each type.

**Frequency coverage:** 10kHz to 30MHz in ten overlapping ranges

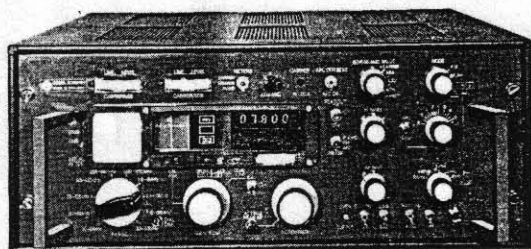
**Reception modes:**  
CW-MCW-AM-SSB FSK  
capability with optional module fitted internally

**Sensitivity:**  
AM: 3  $\mu$ V for 10dB S + N/N ratio (3kHz B/W)  
CW/SSB: 1  $\mu$ V for 10db S+N/N ratio (3kHz B/W)  
CW (10—100kHz): 1  $\mu$ V for 20dB SINAD (1.3kHz B/W)

**Power supply:** AC: 100/130V or 200/260V (40—60Hz). DC: 12V or 24V with external DC/AC Converter. (Eddystone Type 979)

**Dimensions (Cabinet Version excluding optional extras):**  
Width: 502mm (19.75in)  
Depth: 457mm (18in)  
Height: 165mm (6.5in)  
Weight: 22.7kg (50lb)

## High-Stability ISB Communication Receiver Model EC958/12



The EC958/12 design retains all the standard features of the EC958/7E. This receiver provides for ISB reception in a single receiver unit incorporating separate Upper and Lower sideband and carrier channels. The carrier channel provides a comprehensive AFC and AGC generating network. The Upper and Lower sideband channels have facilities for independent 600  $\Omega$  line outputs which can be continuously monitored by means of front panel meters, the meters being switchable to indicate AGC levels or all three channels. A separate meter displays the whole AFC range and an LED indicates optimum AFC operation.

**Frequency coverage:** 10kHz to 30MHz in ten overlapping ranges

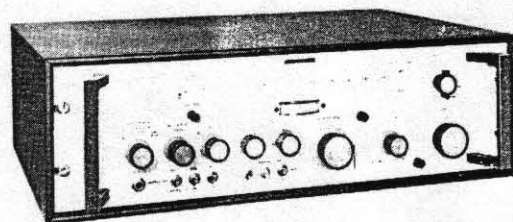
**Reception modes:**  
CW-MCW-AM-SSB-ISB. FSK capability with optional module fitted internally

**Sensitivity:**  
AM: 3  $\mu$ V for 10dB S+N/N ratio (3kHz B/W)  
CW SSB/ISB: 1  $\mu$ V for 10dB S+N/N ratio (3kHz B/W)  
CW (10—100kHz): 1  $\mu$ V for 20dB SINAD (1.3kHz B/W)

**Power supply:** AC: 100/130V or 200/250V (40—60Hz). DC: 12V or 24V with external DC/AC Converter (Eddystone Type 979)

**Dimensions (Cabinet Version):**  
Width: 502mm (19.75in)  
Depth: 457mm (18in)  
Height: 210mm (8.25in)  
Weight: 32.65kg (72lb)

## General-Purpose HF/MF Communication Receiver Model 1830 Series



Civil Aviation Ref: 10D/CA/10696

A medium-cost range of high-grade receivers for general-purpose applications in the band 120kHz to 31MHz. All versions are based on Model 1830/1 which is UK MPT approved as a reserve receiver providing CW, MCW and AM reception facilities for maritime installation. Standard features include 10-channel crystal facility above 1.5MHz, incremental tuning (+50kHz) and provision for synthesized operation. Variants are available with special facilities for SSB, modified coverage and 50-channel crystal capability.

**Frequency coverage:**  
120kHz—31MHz in nine ranges with double-conversion and incremental tuning facility above 1.5MHz

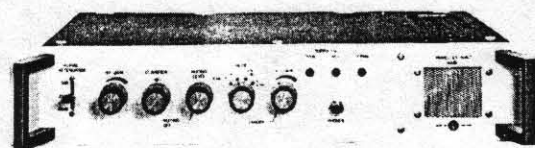
**Reception modes:**  
CW-MCW-AM (DSB)-SSB (selectable USB/LSB)

**Sensitivity:**  
3  $\mu$ V for 15dB S/N (AM mode with 3kHz B/W)

**Power supply:** AC: 100/130V or 200/260V (40—60Hz). DC: 12V or 24V battery direct (Isolated earthing to accommodate all battery arrangements)

**Dimensions (Cabinet Version):**  
Width: 502mm (19.75in)  
Height: 165mm (6.5in)  
Depth: 376mm (14.8in)  
Weight: 15.9kg (35.25lb)

## Single-Channel Crystal-Controlled Communication Receiver Model EC964/7 Series



A family of compact low-cost receivers intended for fixed frequency terminals where high performance and reliability with provision for local and/or remote operation are essential installation requirements. Six versions are currently available, together with associated ancillary equipment. The basic receiver provides reception facilities for A3J telephony. Other variants can accommodate A1, A3, A3A, A3H and F1. A clarifier facility is provided and stability is better than 10Hz over the range—10° to 55°C. Facilities for remote operation can be provided.

**Frequency coverage:**  
Crystal-controlled on any specified channel in the band 1.6—27.5MHz with clarifier facility of  $\pm$ 300Hz. Also available for any spot frequency 400—535kHz

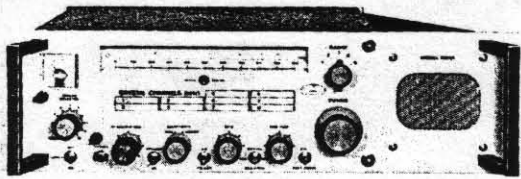
**Sensitivity:**  
1  $\mu$ V for 15dB SINAD (SSB mode)

**Power supply:**  
DC: 12V or 12/24V versions to order  
AC: Either version can be fitted with optional power unit to provide 100/130V or 200/250V (40—60Hz)

**Dimensions:**  
Panel: 483mm  $\times$  88mm (19in  $\times$  3.5in)  
Rack intrusion: 266mm (10.5in) overall  
Weight: 7.7kg (17lb)

## Solid-State Receivers Models 1001 & 1002

\* NOT 1001  
OR 1002



A general purpose communication receiver. Model 1001, and a high fidelity broadcast receiver for AM/FM reception. Model 1002. Special features include 10-channel crystal-control facility on Model 1001; AFC, Muting and Stereo Decoder on Model 1002. A carrier-level meter is fitted on both versions. A special version, 1002/1, has NATO Number 5820/99/52/1494.

**Frequency coverage:**  
1001 five ranges: 550kHz—30MHz  
1002 seven ranges: 150—350kHz,  
550kHz—30MHz  
and 88—108MHz

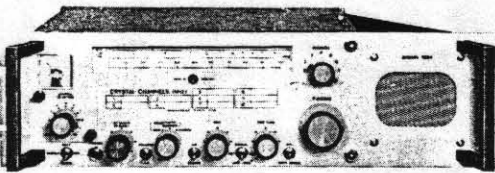
**Reception modes:**  
1001: CW, MCW, AM & SSB  
(USB/LSB)  
1002: AM & FM broadcast including  
stereo

**Sensitivity:**  
5  $\mu$ V for 15dB S/N ratio in HF band

**Power supply:**  
AC: 100/130V or 200/260V (40—60Hz)  
DC: 12V with isolated earthing to  
accommodate all battery arrangements

**Dimensions:**  
Panel: 483 × 133mm (19 × 5.25in)  
Rack intrusion: 222mm (8.75in)  
Weight: 8.2kg (18lb)

## Marine Reserve Receiver Model 1004



This is a special marine version of the '1000 Series' with full UK MPT approval for use as a ships' reserve receiver, providing reception facilities for CW, MCW and AM. It provides coverage of all usual marine frequencies and has provision for crystal-controlled working in the range 1.6 to 30MHz: an integral pre-tuned crystal-controlled converter allows rapid selection of 2182kHz for emergency watchkeeping. All usual communications facilities are provided including aerial relay, desensitizing, independent 600  $\Omega$  line output and clarifier for SSB.

**Frequency coverage:**  
150—535kHz and 1.6—30MHz in seven  
ranges plus pre-tuned channel set to  
2182kHz. Up to ten spot frequencies can  
be crystal controlled using standard Style  
'D' crystals

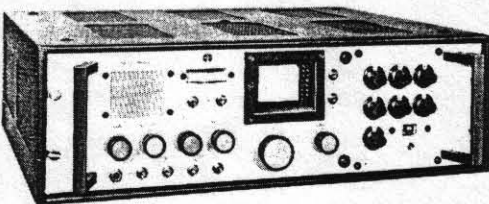
**Reception modes:**  
CW, MCW, AM & SSB (USB/LSB)

**Sensitivity: (3kHz B/W):**  
1.6—30MHz: 5  $\mu$ V for 15dB S/N  
150—535kHz: 15  $\mu$ V for 15dB S/N

**Power supply:**  
AC: 100/130V or 200/260V (40—60Hz)  
DC: 12V or 24V battery direct (isolated  
earthing to accommodate all battery  
arrangements)

**Dimensions:**  
Panel: 483mm × 133mm (19in × 5.25in)  
Rack intrusion: 222mm (8.75in)  
Weight: 7.7kg (17lb)

## General-Purpose VHF/UHF Receiver Model 1990R Series



A range of professional-grade VHF/UHF receivers for communications and laboratory use in the band 25-500MHz. provision for high-stability working is a standard feature. Receivers are supplied with either a 10-channel crystal facility or an integral synchroniser unit (as illustrated) allowing continuous tuning in increments of 100Hz. Three IF Bandwidths positions are available. As standard 30kHz and 250kHz filters are fitted. Enquire for alternative filters. Video and 600  $\Omega$  audio outputs are provided.

**Frequency coverage:**  
Model 1990R/1: 25-235MHz in  
five ranges  
Model 1990R/2: 25-500MHz in  
seven ranges

**Reception modes:**  
AM-FM-CW—PULSE

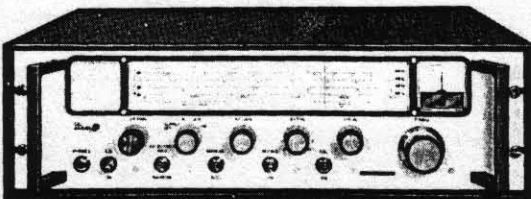
**Sensitivity:**  
(10dB S+N/N with standard o/p)  
AM: 3  $\mu$ V (25-235MHz) 5  $\mu$ V  
(230-500MHz) 30kHz B/W  
FM: 3  $\mu$ V (25-235MHz) 5  $\mu$ V  
(230-500MHz) 250kHz B/W

CW: 2  $\mu$ V (25-235MHz)  
3  $\mu$ V (230-500MHz) 30kHz B/W

**Power supply:**  
AC: 100/130V or 200/260V (40-60Hz)  
DC: 12V (negative earth)

**Dimensions: (Cabinet Version):**  
Width: 502mm (19.75in)  
Height: 165mm (6.5in)  
Depth: 457mm (18in)  
Weight: 25kg (56lb)

## VHF Receiver Model 990R



A single-conversion receiver of advanced circuit design ideally suited for laboratory or communications use. Frequency coverage extends from 27-240MHz with provision for crystal controlled working. Standard IF bandwidths are 30kHz and 200kHz with alternative filters to order. Video and 600  $\Omega$  audio outputs are provided.

**Frequency coverage:**  
27-240MHz in four ranges

**Reception modes:**  
CW-AM-FM

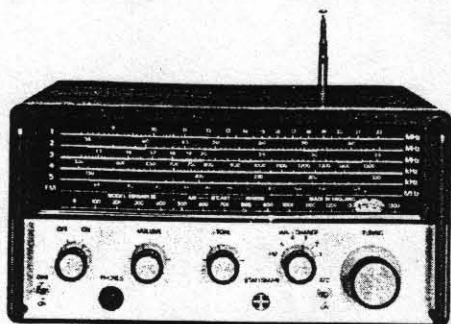
**Sensitivity:**  
5  $\mu$ V for 10dB S/N (AM mode 30kHz  
B/W)

**Power supply:**  
AC: 100/130 or 200/260V (40-60Hz)  
DC: 12V from external battery  
(negative earth)

**Dimensions (Cabinet Version):**  
Width: 426mm (16.75in)  
Height: 165mm (6.5in)  
Depth: 376mm (14.8in)  
Weight: 16kg (35.25lb)

Civil Aviation Ref: 10D/CA/5967  
Nato Number: 5820/99/199/2527

## Solid-State Broadcast Receiver Model EB35 MkIII



The EB35 MkIII has a wide frequency range covering long, medium and three short wave bands, plus international FM broadcast coverage. The AM aerial input has a special Eddystone diode protection array, designed to minimise the damage likely to be caused by local high-power radiation or lightning. A telescopic aerial is fitted as standard. A 5" diameter speaker is fitted. Provision is made for an internal speaker and for personal listening via a standard Post Office headset socket. The audio stages can be used independently for microphone, tape or phonograph reproduction. Optional power packs for dry battery, AC mains and external 12/24V DC supplies are available.

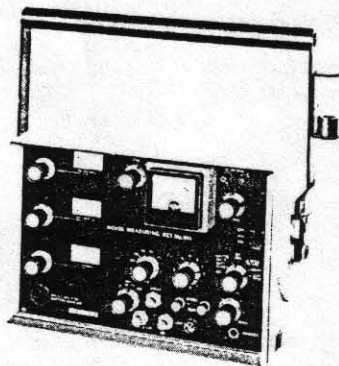
**Frequency coverage:**  
VHF/FM: 88—108MHz  
Range 1: 8.5—22MHz (35—13.5m)  
Range 2: 3.5—8.5MHz (85—35m)  
Range 3: 1.5—3.5MHz (200—85mm)  
Range 4: 550—1500kHz (545—200m)  
Range 5: 150—350kHz (2000—850m)

**Power supplies:**  
DC: 9V (6 × U2 or HP2 cells) or 12V or 24V external source using optional converter unit Cat. no. 945A  
AC: 100/125V or 200/250V, 40—60Hz using optional mains power unit (Eddystone Type 924A)

**Sensitivity:**  
FM: 5 μV for 20dB S/N (22.5kHz deviation)  
AM: 6 μV for 15dB S/N (Ranges 1—3)  
10 μV for 15dB S/N (Ranges 4 and 5)

**Dimensions:**  
Height: 162mm (6.37in)  
Width: 317mm (12.5in)  
Depth: 208mm (8.18)  
Weight (inc. batteries): 11lb (5.0kg)

## Noise Measuring Set No 31A



A solid-state equipment meeting requirements of B.P.O. Specification W6912 for a Portable VHF Interference Tracing and Measuring Receiver. CISPR quasi-peak detector is employed and the measuring range provided is 110dB. Accuracy of measurement ±2dB with sine-wave voltages. The receiver is supplied complete with specially designed collapsible antenna in a ruggedly constructed case suitable for field use.

**Frequency coverage:**  
31—250MHz in three ranges

**Power supply:** Internal rechargeable 2Ah battery. Built-in charger operates from 40-60Hz supplies of 100/125V or 200/250V

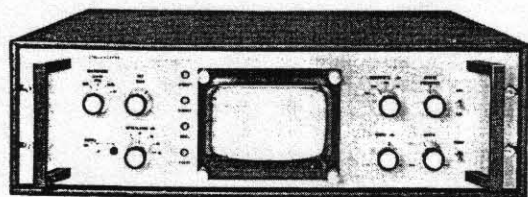
**Reception modes:**  
CW-AM-FM

**Sensitivity:**  
(for 6dB indication above noise)  
Voltage: less than 2 μV input  
Field strength: less than 20 μV/metre

**Dimensions:**  
Width: 302mm (11.875in)  
Height: 206mm (8.125in)  
Depth: 256mm (10.062in)  
Weight: 9.4kg (21lb)

A Ministry of Posts and Telecommunications design marketed under licence from the Post Office.

## Panoramic Display Units Model EP1061 Series



Designed as ancillaries for use with standard receivers these units provide for high-resolution linear or logarithmic display of signals on a screen size 10 × 6cm. In the logarithmic mode the range is 40dB. The sweep frequency is variable from 1.5kHz to 15kHz (1061A/1); 100kHz to 10MHz (1061B/1) and a calibrator is incorporated. An input attenuator enables the strength of signals to be compared. Other features include four selectivity ranges and provision for scan reversal.

**Input frequencies:**  
1061 A/1 Switch 100kHz or 1.4MHz  
1061 B/1 10.7MHz or 21.4MHz

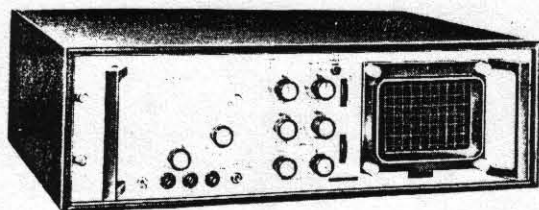
**Resolution (Maximum)**  
1061 A/1 50Hz  
1061 B/1 5kHz

**Power supply:**  
AC: 110/240V (40-60Hz)

**Sensitivity:**  
(for 1cm trace deflection)  
1061 A/1 1mV  
1061 B/1 50mV

**Dimensions (Cabinet Version):**  
Width: 502mm (19.75in)  
Height: 165mm (6.5in)  
Depth: 457mm (18in)  
Weight: 16.78kg (37lb)

## Panoramic Display Receivers Model EP961 Series (EP961 Mk.II A & Mk.II B)



These two units are extremely high-grade instruments utilizing solid-stage techniques and styled to match other Eddystone equipment. Although primarily intended as ancillaries for use with standard receivers, their sensitivity is sufficiently high to allow use with direct aerial connection in many applications. Provision is made for connecting a pen recorder and a DC output is available to drive external sweep oscillators. Screen size 10 × 6cm with log. or lin. scaling.

**Frequency coverage:**  
961A: 50kHz—800kHz  
961B: 500kHz—36.5MHz

**Power supply:**  
AC: 100/125V or 200/250V (40-60Hz)  
DC: 12V (negative earth)

**Sensitivity:**  
(for 1cm trace deflection)  
961A: 10 μV. 961B: 25 μV

**Dimensions (Cabinet Version):**  
Width: 502mm (19.75in)  
Height: 165mm (6.5in)  
Depth: 457mm (18in)  
Weight: 16.3kg (36lb)

**Resolution:** (signals differing by 40dB)  
961/Mk.II A Max. 30Hz  
961/Mk.II B 2kHz

Available against special order only

Nº 4.

# EDDYSTONE

## Short Wave

### MANUAL

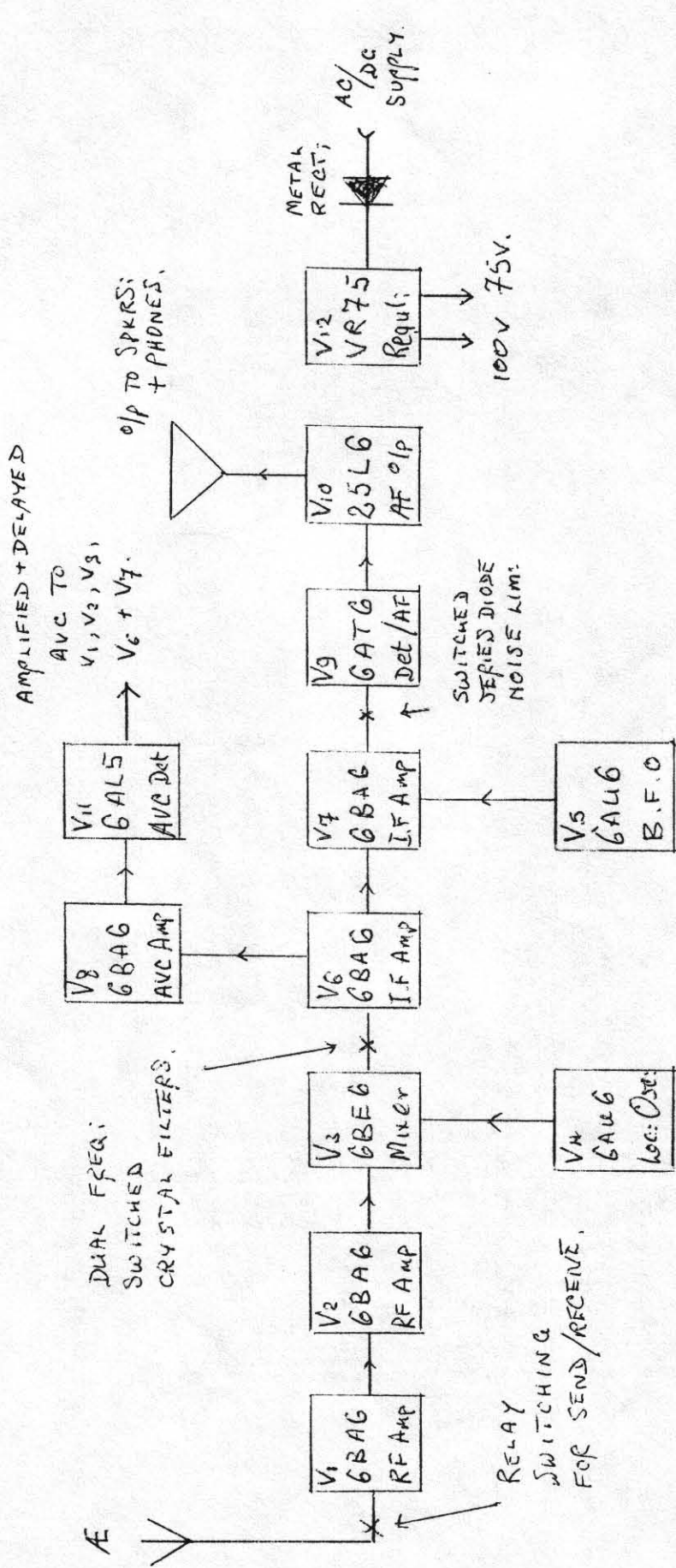
Illustrated constructional articles for building simple S. W. Receivers • low and medium power Transmitters • Amateur Communication Receiver Pre-selector • Cathode-Ray Oscilloscope, etc.

PRICE 1/-

CONSTRUCTIONAL ARTICLES for -

**SHORT WAVE RECEIVERS AND TRANSMITTERS**

FROM YOUR RADIO DEALER ; W. H. SMITH & SON, or in difficulty send 1/2 to STRATTON & Co., Ltd. Eddystone Works, Bromsgrove Street, Birmingham.  
 London Service : Webb's Radio, 14, Soho Street, W.1.



- DUAL SWITCHED I.F. TRANSFORMERS + LOCAL OSCILLATOR + BFO

FOR 110 + 465 Kc/s.

- TEN RANGES - 10 Kc/s TO 30 Mc/s.

- BLOCK SCHEMATIC AS PER BA798, (4BP807).

S.700 / 1MR54 / LMT 3321C.



## - Featured Model, S700 -

This larger than life-size model is an AC/DC comms receiver designed specifically for Marine, Main Receiver use as specified by the then Board of Trade.

Information originating from the late Geoff Woodward was to the effect that only some 200 were made and that most of these went out as Marconi IMR54. Only one or two got Eddystone logos, some went out as LMT 3321/C.

Post Office approved as a Main Ship's Receiver, therefore to the highest spec; then available, the 700 was basically a twelve valve set with heaters arranged in series parallel for AC/DC supplies. It was mainly used on shipboard 120 volts, at any time a noisy supply.

The valves used, the addition of a thermistor and the necessary 'hash' chokes meant that for this voltage no 'dropper' resistor was required. Valve types were the then current B7G types with the unusual exception of the AF output valve, a 25L6. This plus the VR75 regulator are octals.

There the 'basic' side of this model ended ! The whole set weighed in at around  $1\frac{1}{4}$  hundredweight, or circa 66 kilos. The cabinet was typical Eddystone slide rule design apart from it being  $1\frac{1}{2}$  times the usual dimensions all around. Imagine a 750 with a front panel width of 30 inches and scale length of 25 inches and you will get the idea. A dinosaur for Eddystone since the cast alloy coil box itself was about 18 x 13 inches.

Even further from the basic was the circuitry employed in the 700. 2 RF stages band-pass coupled from the aerial and gang-tuned on all TEN ranges, which covered from 10 Kc/s to 30 Mc/s. This was followed by separate mixer and oscillator stages. The IF strip was dual frequency, and switchable from 465 Kc/s to 110 Kc/s to suit the range in use. This necessitated dual crystal filters being switched too. Additionally a switched frequency BFO and switched dual AVC circuitry with amplified and delayed AVC. This was followed by fairly standard detector and AF amplifier stages feeding an internal speaker with provision for an external speaker and a 'phones socket.

A switchable meter could also monitor the screen and anode currents, HT1 being a mere 100 volts and the HT2 supply for the BFO and local oscillators being a mere 75 volts. Switching of all these facilities was by mechanical cams and levers and the duality of the IFs enabled a complete, no gaps, coverage from VLF to HF.

Valve line-up was V1 & V2, RF amps, 6BA6 x 2. Mixer V3, was a 6BE6 and the local oscillator, V4 was a 6AU6. The BFO was another 6AU6. V6 & V7 were the IF amps and again were 6BA6 types with another 6BA6 as an AVC amplifier, V8. The AVC detector was a 6AL5, V11. For Audio output the 25L6, V10, had transformer coupling to either an internal or external speaker plus 'phones.

As was common in those days the Noise limiter used a copper oxide rectifier unit in a series type circuit.

Finally our old friend Geoff Woodward must have been a bit of a masochist since he claims to have done the final testing and alignment of the whole batch by himself, in 1952/3.

I do have a full size copy of the Blue Print for the S.700 and it is, like the receiver, of massive dimensions. Ted.

## - MEMBERS ADVERTS -

WANTED - front panel for Racal RA17L, in mint condition. Please call David on 01788-574099 (Rugby).

STILL SEEKING - models 960, 930, and 890 please. Also anyother models for spares. Please call Peter Lepino on 01372-454381 or 0374-128170 anytime. Many thanks.

WANTED - a 3rd IF transformer for my Eddystone 750 receiver, the 85 Kc/s one this is. Please reply to Ian Pysden, P.O. Box 140, Milang, South Australia, 5256. Thanks.

FOR SALE - EC10, EB37, at £80 each. Also EB35 III for spares, offers please. Prefer buyers view and collect. Call 01376-513612 (Essex), thanks.

FOR SALE - EC10 II slight paint loss top and bottom edge otherwise mint, battery only, serial 8236 at £90. Grundig 3005, 1972 with SW 1.6 to 30 in 4 bands plus LW,MW. Battery/mains, 26 buttons/knobs, bandsread etc; but FM is u/s hence only £50. Grundig Concert Boy Luxus 1500, large portable with FM,LW,MW and SW 5.9 to 18 Mc/s, battery/mains at £45. Grundig Party Bpy 1968, LW,MW,FM, battery only, GWO at £40. Grundig Music Boy 1967, LW,MW,FM,SW, PP9 battery, at £45. Grundig Music Boy 150 LW,MW,FM,SW, battery or mains, mint, £35. Early '70s Grundig, yellow plastic case, slight fading, FWO, battery portable with LW,MW,FM,SW, at £35. Nordmende Galaxy Mesa 4404, 1970s set FWO, battery/mains, LW,MW,FM,SW 5.9 to 18, large portable at £45. Please ring Peter on 01928-773628 (Cheshire).

FOR SALE - valves across the water, new and used but tested types for your Eddystone, AR88 or HRO, etc; David Boardman, 10 Lemaistre, Sainte Foy, Quebec, G2G 1B4, Canada, or phone on (418)-877-1316. Thanks.

FOR SALE - obsolete transistors and other parts for your Eddystone, AR88, or Roberts. Many other parts so ask. NJT Components, 0181-297-2440.

- - - -

## - The 850/4 LF Receiver -

Archie has been lucky enough to purchase an 850/4 for use on his NDB hunting project. The price was not over the top, at £90, the condition externally looks very good. But internally some botched repairs have had to be redone to specification.

Most of the bits needed were simple proprietary components such as resistors gone very high, condensers gone s/c or o/c, and a couple of decidedly low emission valves. What took time was undoing the horrible soldering that had new resistors shunted across the old ones, new condensers simply tagged on across points where the old had been removed, and this done apparently with modern low melting point solder as suitable for low voltage pcb use.

It worked after a fashion when all had been put to rights.

But it was easy to see that the mad twiddler had been at work, no slugs missing or broken but the grooves were badly worn and the alignment was way out. On the very low frequency range the local oscillator had been set to the wrong side of the signal frequency with dire results.

Total re-alignment took up several full weekends during the winter months, the worn slugs came out and were re-inserted with the unworn slot at the top of the former, a genuine Eddystone trimmer was used for re-alignment this time.

Results now, after some 3 months of work are quite fantastic. The 850 will pull in many Dx NDBs that had never been heard before at this QTH - this on a simple 132 feet long wire. Plans are afoot for a 36 inch square loop for NDB Dxing and results will be detailed in a future N/L.

- - - -

- An EA12 Problem -

What Martin had was an EA12 that was typically well behaved as always, excepting that the Calibrator was intermittent, it might work, it might not. If it did so work then it might go off after a few seconds. Swopping of the EF94 valve with a couple of spares made no difference at all. Despite the many years of good service Martin still felt let down at having to open up the EA12 for the first time ever.

After several minutes spent testing it was found that the screen supply to V13 the EF94 was almost non-existent after the first seconds of application of HT via the Calibrate switch. It became necessary to open up the calibrate unit and here it was found that a corroded 'tail' on the top end of the tuned circuit coil L30 had gone high resistance. Re-termination of this 'tail' was easy enough and the calibrator had then to be re-zeroed to WWV. This restored the EA12 back to its normal good health and operating usefulness.

Whilst it was open on the bench a check was made on all other voltages as per the Manual table. Nothing untoward was found, all volts being within the spec; and so after a few component checks had shown nothing needed to be replaced the set was boxed up again and left on soak. After a 1 hour warm up WWV on 10 Mc/s was tuned in 'on the nose' and the set was left on a soak test for 6 hours after which the tuning was found to be little more than a few cycles per second out.

- - - -

- S.358X Metering -

Here we have a 1943 receiver, yes it is dated on the rear panel of the chassis by a rubber stamp of MoD origin. The problem was a minor one but just a bit niggling for Russ. All of the metered voltages shown on the integral switched meter were lower than specified. One in particular was very low indeed.

It was decided that the only possible recourse was to replace all of the ancient carbon rod type resistors with modern high tolerance types, no attempt being made to disguise them as 'oldies'. However for any future owner the old resistors

were put in a plastic bag and attached at the rear of the set, with a note of explanation.

The metering was eventually back to normal and the 358X was put back into service, but not for long !

Some days after the repair the receiver went dead and although the heaters could be seen to be 'lit' there was no HT at all. This meant opening up the set again, and doing the usual voltage checks, since the psu had been proved okay already. The problem was easy enough to find but harder to cure. The panel HT switch, necessary for cutting HT when swapping coil packs, had gone o/c internally. No amount of switch cleaner squirted into the switch made any difference. It obstinately remained o/c despite many clicks from one position to the other.

A replacement was found on an ex WD radar unit from about the same era, same switch type and same 'dolly'. This was cleaned prior to fitting and the 358X was once more fired up.

No more problems since then and performance is still as adequate as ever on Russ's favoured bands. Ted.

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- Carnival Time -

Something that our able administrator, Graeme, does not tell us is that in his other leisure activities he includes participating in the local Bewdley Carnival.

In this role he has, admittedly with some help, constructed a half scale replica of a World War I German Fokker D VI. This apparition must be seen to be believed. It has been constructed in such a way that it fits onto the electric scooter belonging to Graeme's xyl, Eda. With or without her agreement is not stated but as the pictures prove the plane fits on top and the pilot, very intrepid individual, fits inside. No radio communication in those days of course but I would not put it past Graeme to come up with one of those chronological inexactitudes and to carry a 2 metre handheld. That Eda must be a very forbearing lady goes without question. Happy landings Red Baron, (Graeme).

- - - -

- Old Adverts -

A few more in this issue, the Marconi catalogue not so old, the ad from January, 1938, T & R Bulletin much older. And to silence the doubting Thomas out there. YES, in those days Eddystone did manufacture their own components. They did not buy them in from other manufacturers. This has been suggested a few times in my mail but my information from older employees is that very little was bought in. It was less costly to make components in house given that the factory had a full range of metal working machinery and the employees to operate it all.

Valves were the exception, here it was usual to specify a given make and type for the kits. For built in-house receivers it appears that valve types were chosen by designers up to the onset of WW II but that afterwards use was made of the vast quantities of surplus CV types available.

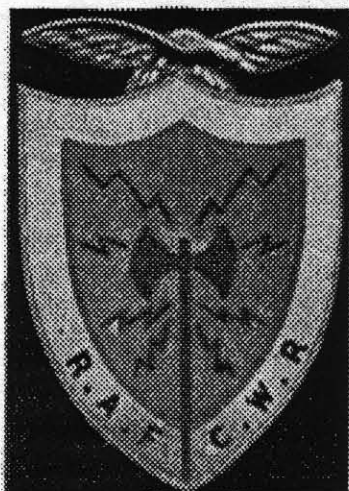
- - - -



Strattons Ltd never did make airborne wireless for Fokkers or anybody else, BUT E.U.G. made a Fokker and provided the pilot. N.B. the mascot dolly thrown out of the cockpit, a prang maybe on pre-acceptance trials ???



\*Digitised photos in this issue courtesy of Simon, Tnx OM.



## RADIO RAMBLINGS

### By Graeme - G3GGL

In my last offering of 'Ramblings' I was chattering on about the RAF Civilian Wireless Reserve of 1938/39 and mentioned that when members passed a Morse test of 6 w.p.m. they were awarded a badge. I asked if anybody had ever seen one. Well so far nobody seems to have seen the real thing, but Simon, G8POO, one of our more serious archivist members, has found a picture of one in a copy of the T & R Bulletin (forerunner of the RSGB 'Radcom'). In heraldic terms I suppose you'd describe it

as 'in pale, a battle-axe sparking, surmounted by a nighthawk sinister!' So keep looking in those little trays which you find in bric-a-brac shops.

#### *FULL FORMAT A4 TAKES THE LEAD . . .*

This is the first EUG Newsletter printed outside the factory for over four years. It has been copied by Stargold Printers of Kidderminster - I hope it's easy to read! By now you will have realised that the referendum to determine the format was won by A4. The result at the time of writing was as follows: A4 - 62 votes, A5 - 17 votes, "Don't mind or didn't say" - 71. Many of the 'A4s' said they filed the Newsletters in standard loose-leaf binders and wished to continue doing so. I've asked Anthony Richards, GW4RYK, if he'll do an index for Year 8 (Nos 43 - 48). Members will recall that last year he did a very comprehensive index of Nos 1-42; this is still available, bound in plastic, at £4 home, £5 overseas, airmail included. Order from me at the usual address. When Anthony has completed the index for year 8, I expect Ted will incorporate it with the newsletter.

#### *THE GREAT 659/670 MYSTERY SOLVED . . .*

Since I've been involved in the admin of EUG over the past couple of years, three or four members have asked me for handbooks for the model "659/670". Now there is no reference whatever to such a model in Christine's Technical Library, merely the '659' and the '670', which are quite different sets. The first one to ask brought me his set to examine. Stratton's plate on the chassis only had a serial, no type number. I had a careful look inside and after much headscratching pronounced it to be a model 670 and supplied him with a handbook accordingly. Since then anybody asking for a 659/670 has had a 670 book. I've had slight misgivings but nobody's ever complained.

Last week I was chatting to Bill Cooke, GWØION, (former chief engineer) about the latest edition of 'The Cooke Report' (see elsewhere). On an impulse I asked him: "What was the 659/670?" Now Bill has total recall and the delivery of a machine-gun.

"Two different sets" he said, "but they both covered the same wavebands so we made a standard dial and labelled it with both numbers." Somewhat taken aback by this cavalier attitude to future industrial archaeologists, I was foolish enough to ask him how you could tell the difference . . . "Quite easy," he replied, "If it's got octal valves and a mains tranny it's a 659; if it's got B8G valves and a mains dropper it's a 670." So that put me in my place. And would any future applicants for a 659/670 handbook please look inside their sets first!! (Good grief! Bill must think I'm a simpleton . . . )

### *E.U.G. MEMBERS' STATISTICS . . .*

It's not very often we analyse our membership, in fact we tend to keep ourselves very much to ourselves. But at the end of Year Eight I decided to look into it to satisfy my own curiosity and I think members might also be interested. In April 1998 we had 320 members of whom 266 were on the mainland. Of these, 131 are licensed hams (86 class A, 45 class B). Of the four home countries the breakdown is as follows (licenced hams in brackets):-

ENGLAND 226 (110); N. IRELAND 5 (2); WALES 20 (12); SCOTLAND 15 (7).

We don't usually mention names, BUT, we have TWO members named 'Pete Rowe'. We only have one member named 'Smith' but we have FIVE named 'Jones', FOUR named 'Marshall', FOUR named 'Parker', FOUR named 'Taylor', FOUR named 'Thomas', THREE named 'Wood' (and one named 'Woods'), together with numerous 'doubles'. You can see why I prefer members' orders in writing!!

Overseas members number 37, of which 19 are licenced hams. The following countries are represented (licensed hams in brackets):-

U.S.A. 8 (4); Australia 7 (3); Canada 6 (4); New Zealand 4 (1); The Netherlands 3 (1); Republic of Ireland 2 (1); Germany 2 (2); Isle of Man 1 (1); Jersey 1 (-); Italy 1 (1); Bahamas 1 (1); Norway 1 (-).

Each May we lose between 50 and 100 members, who are replaced gradually throughout the following year. Wales has long led the league for percentage of population belonging to EUG! Interesting, isn't it?

### *THIS MONTH'S EDDYSTONE BROCHURE . . .*

The Eddystone brochure included with this Newsletter is a particularly interesting and historic piece of ephemera; take good care of it! It's probably the glossiest brochure the Company has ever produced for an H.F. receiver. Members with 20/20 vision will see that it was issued in 1984, which makes it 14 years old already. This is the last of the original printing and will never again be available. The 1650 was, of course, the Company's first microprocessor-controlled VLF-HF receiver. It ran to another twelve variants before it was discontinued around 1996. Chris Pettitt used to have the centre-spread framed on his office wall. You could do worse than put it in an A3 'frameless' frame and hang it in the shack . . .

*END*

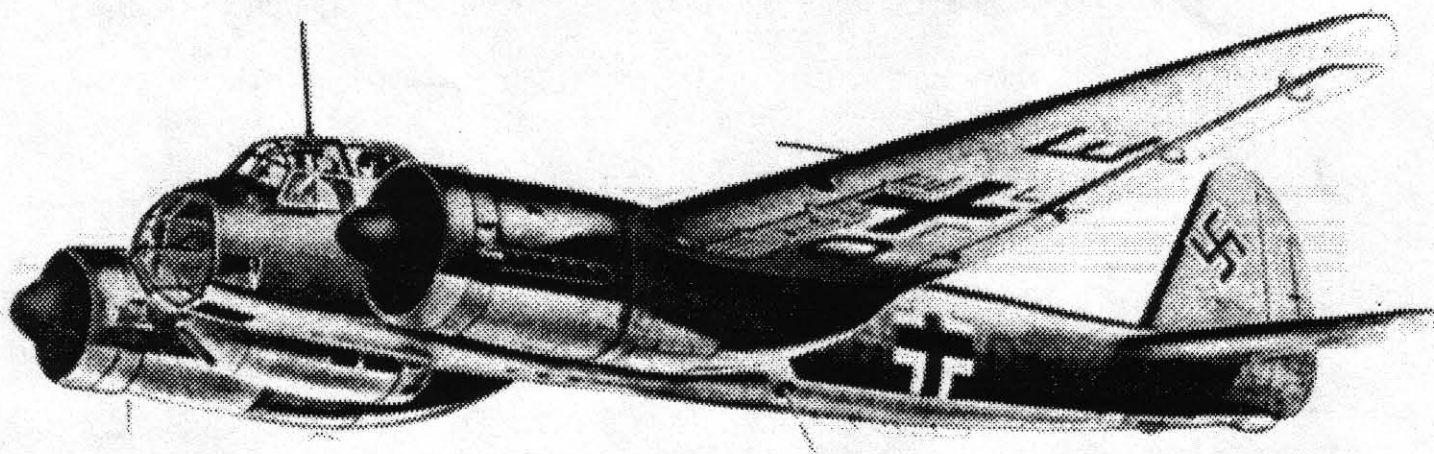
# The Cooke Report

## Part 2

*In our last Newsletter we read how Bill Cooke, GWØION, former Chief Engineer at Eddystone, was offered a job by G.S.Laughton, boss of Stratton, when he was eleven years old. Bill described to us the days between the wars and how he trained at the old factory in Birmingham. At the outbreak of World War II he was called up for service in the R.A.F. . . .*

### *LIFE WITH THE AMES's . . .*

"Air Ministry Experimental Station (AMES) was the title used to describe a new generation of Radar units (or RDF - Radio Direction Finding, as we called it before the Americans came into the War). After square-bashing (basic training), I found



*. . . A HIGH-FLYING JUNKERS JU 88 ON PHOTO-RECONNAISSANCE . . .*

myself embroiled in the arcane world of electronic warfare, in particular working with the MB2 and CHL mobile radar transmitters at RAF Rame Head. They operated with an HT of 15 kV and gave a peak power output of 250 kW. Not to be trifled with. At a distance of exactly 11.5 miles on a bearing of 198.5 degrees the Eddystone Lighthouse gave a wonderful Permanent Echo with which to check our equipment!

"In May 1940, when the Battle of France was going in Hitler's favour, Benito Mussolini led a reluctant Italy into the War. He saw the opportunity to expand his Empire in Africa at Britain's expense. Early in 1941, newly-married, I was detailed to sail for Egypt.

### *ACTION IN THE WESTERN DESERT . . .*

"I joined 219 AMES at Port Said early in 1941. The British 7th Armoured Division, already nicknamed the Desert Rats, had advanced into Italian-held Libya and were



making mincemeat of Marshal Graziani's forces, who were surrendering in droves. Well over 100,000 prisoners were taken. It was our first land success of the War. In the air the Luftwaffe were very interested in British shipping activity and troop movements in the Suez area - they had already set on fire the troop transport "Georgic" in the Canal. The Luftwaffe monitored the Suez area with a high flying Junkers Ju 88 on photo reconnaissance and this aircraft was plotted by 219 AMES most days. It must have been a souped-up version reaching heights well over 40,000 feet, out of range of Ack-Ack batteries (triple-A in Gulf-speak) and above the ceiling of our fighters. After a week or so of watching the Junkers appear on the screens at the same time every day a plot was hatched. A Spitfire was stripped down to bare essentials and took off half-an-hour before the intruder was due. It must have reached record height because one pounce and no more Junkers. They kept clear for a long time after.

### *A CLOSE SHAVE . . .*

"After some months at 219 AMES I joined 846 AMES, a ground control interception station operating on 212-220 mc/s. Whilst stationed at Cirene the Italian Air Force monitored the Med Coast with a Cant Z 1007 mostly every day and most days we plotted it and each one was shot down - they didn't seem to learn too quickly!

"Later on when we were stationed near Bir Hacheim (held by the Free French) south of Tobruk we were attacked by three Messerschmitt Bf 109s. They shot up the aerial cabin but missed the Tx & Rx vehicles. Our machine gun defensive failed to respond with any degree of success.

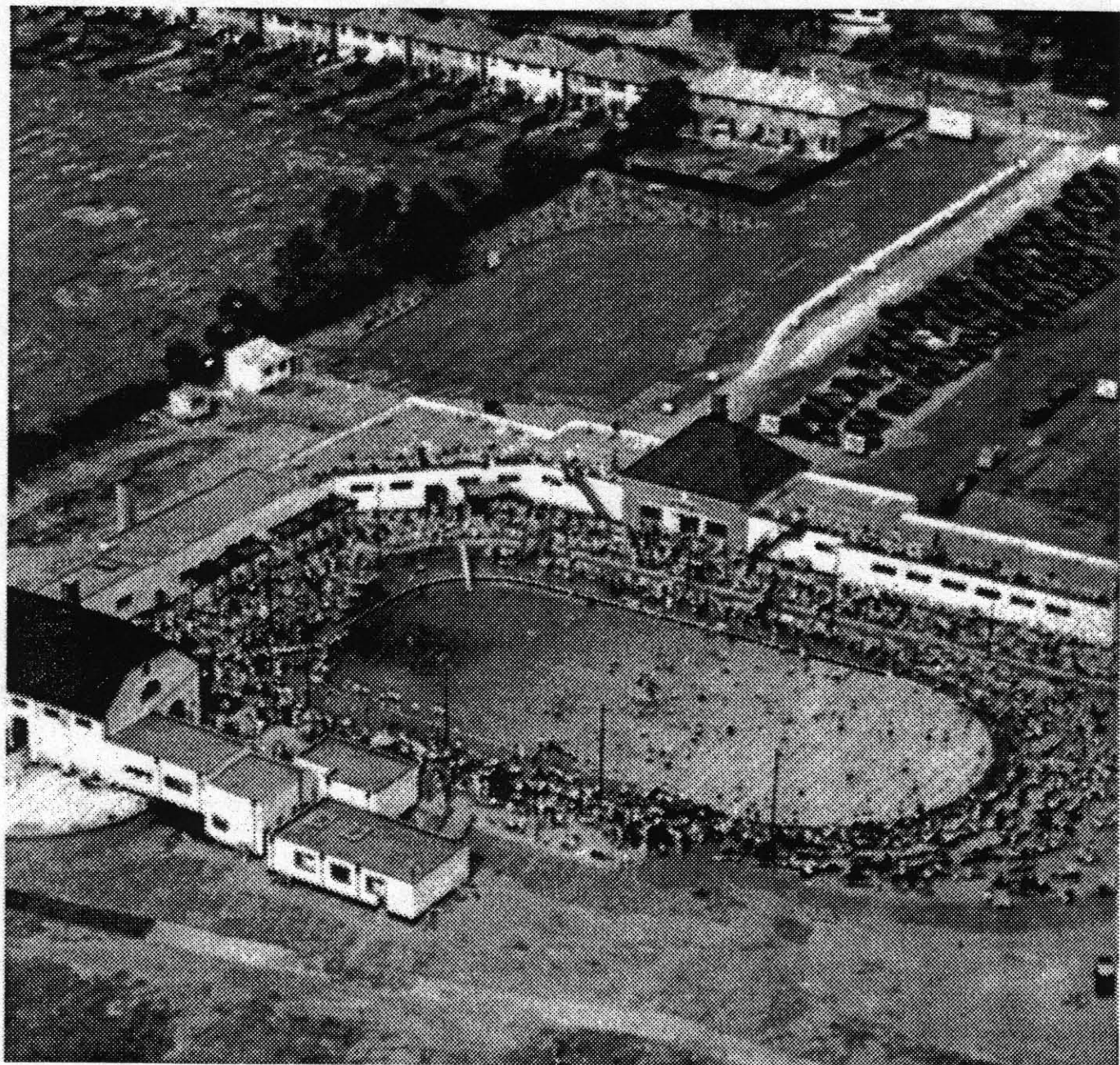
"Following on from 846 AMES I joined 881 AMES at its formation and advanced to Castell Benito aerodrome, Tripoli, setting up station at Zouza covering Tripoli Harbour. The Luftwaffe for a while attacked at night with 40-60 aircraft but were plotted in and out and attacked by Beaufighters. I moved further west to Algiers and home in time for V.E.Day.

"After some well-earned leave we were preparing to take our radar out to the Far East for the long slog against Japan. That was cut short by another piece of modern technology at Hiroshima. As I was one of the first in I was one of the first out. By the end of 1945 I was back with Eddystone, but at a very different QTH.

### *LIFE IN THE BATH TUB . . .*

"At the end of 1940 the Birmingham Blitz saw the destruction of much of the city centre. Stratton's several factories were destroyed one by one, including Eddystone. The parent company took over the Lido at West Heath, a suburb to the south of Birmingham. This was a large leisure complex, opened in 1937 by Gracie Fields, England's top entertainer. It had a fun-fair, swimming pool, dance hall and holiday chalets. The locals called it 'The Bath Tub' but it was before its time; it had gone bust before the war started. Stratton's were re-housed in the ladies' dressing room and the ballroom. It had been abandoned so suddenly that the bar was still stocked with

... WEST HEATH LIDO BEFORE WORLD WAR TWO ...

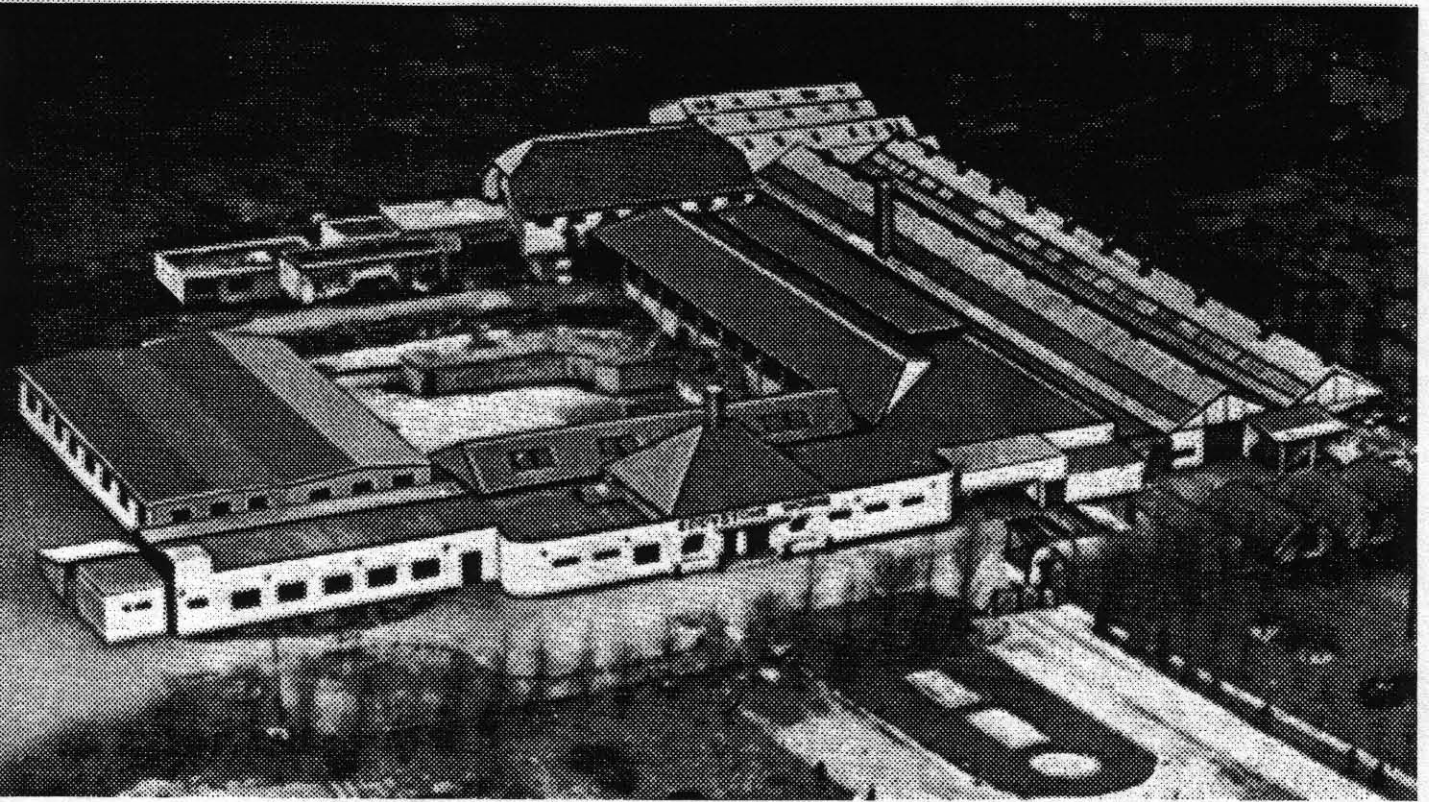


drinks, to the delight of the staff. Machine tools were begged, borrowed and made on the premises. Within three months the 358 communications receiver was in production, together with a huge range of components for the war effort. By 1945 Stratton's had supplied over 4,500 transmitters, 7,250 receivers, and four and a half MILLION components to the armed services.

*MY FIRST PEACE-TIME PROJECT ...*

"All this, of course, took place in my absence, but it was the scene I returned to as 1946 was dawning. The defence contracts had faded and the company was seeking

... THE BATH TUB AFTER THE WAR ...



a foothold in the market under unusual conditions. War surplus was providing the radio amateur with cheap components. It was decided to concentrate on the quality receiver market but my first job, with Jack Gwynne, was to develop an RF welding machine for plastic knickers. Yes, honestly! One of the parent company's post-war developments was babies' plastic pants, a very new idea. The technique of sewing plastic sheet was difficult, the holes made by the machine provoked rips. So they hit upon the idea of welding them with RF and turned to the Eddystone team to develop the machinery. It turned out as a cross between a sewing machine and a diathermy unit, operating at about 50 mc/s. The maximum RF power was about 150 watts and was controlled by a Variac. After the usual teething troubles it was very successful; three were shipped out to the Australian factory and saw many years' service.

*MAGNIFICENT FAILURES . . .*

"Whilst I was at work on the panty-welder the company's first post-war receiver was produced, the S.556, intended for the 'tea-planter' market, together with the communications version (the S.504 with BFO, xtal filter, and S-meter). They used octal valves (the same as the wartime 358 and were probably the same stock!) and had a very comprehensive specification: two RF stages, two IFs, and all the rest of it. They didn't sell very well and production lasted less than a year. Their greatest virtue was the diecast aluminium cabinet which became (and still is) a design classic. When more sophisticated tests were applied to the S.504 it was found to be less than

perfect in performance. But it was well-made and it set the style for the next twenty years.

### *TARGET THE RADIO-AMATEUR . . .*

"The next project was aimed specifically at the SWL and transmitting amateur, the famous S.640. This also used octal valves throughout (the last set to do so) and worked quite well with its 1.7 mc/s IF and resultant low level image response. But it was very expensive at £51. This was five times the price of a good war-surplus set in 1947 and the average ham, being a bit of a tightfist, kept his wallet closed. The overseas market fared no better; you could get a Hallicrafters S.40 for £22. Then prices started to come down and G.S.Laughton said 'unload them'. So they reduced them to £27.10s and they started to move.

### *THE FIRM EXPANDS . . .*

"Around this time George Laughton decided to put things on a more professional footing at the Bath Tub and he built a new Development Block actually in the bottom of the swimming pool. That was when he made me Chief Engineer; I had just passed my 28th birthday and couldn't believe my luck. Harold Cox was made Technical Director, and then one of our more embarrassing projects emerged . . .

"The Company was without a good professional HF receiver, the S.504 having flopped, and Harold Cox was eager to get things moving. He specified that it should use the new B7G miniature valves, be fitted into the 640 cabinet and use the same mains transformer (we had loads in stock!). If you look at the Radiolympia report in the Wireless World for October 1947 you'll see a photo of the new S.680. But it's smaller than the 680 which was finally released two years later! The problem was heat... too much of it. The 640 transformer was pushing it to start with and the extra load of the 680 caused it to burst into flames when left permanently operational in high ambient temperatures. Not exactly the sort of reliability which Stratton were seeking to promote. After a major re-design the 680 and its slide-rule dial version, the 680X, became one of our best-sellers of the 'fifties. And this in spite of having a price-tag which was the deposit on a new car!

***IN OUR NEXT NEWSLETTER BILL DESCRIBES MORE  
SUCSESSES AND DISASTERS FROM THE BATH TUB . . .***

-=#=-

*Post-script . . . At the Vintage Communications Fair last month (see front page) we had an eyeball with Bill and his XYL. He asked us to pass on his best 73s to fellow E.U.G. members and is delighted with their response to his feature.*

*Old-timer Stan Smith, who worked at Eddystone in the 'thirties and 'forties, also called by and said his everlasting memory of Harold Cox was the cigarette permanently fixed in the corner of his mouth, dropping ash into the gear!*

## - 880/2 Monitor Speaker -

This had become more and more distorted as time went on and although a repair might have been possible it was decided that this would be a time consuming exercise.

Speakers of this size, approx 2 inches diameter, are available at most Rallies but they are never of the required low impedance, for this is a 3 ohm unit and most modern mini speakers are of the 8 ohms variety. No harm would come from fitting one of these 8 ohms jobs but what would happen to the quality of the reproduced audio ??? Tony decided that it was a case of 'suck it and see' so he fitted a new mini, 8 ohms speaker. It was decided to fit a shunt 10 ohms resistor across the coil of this speaker to bring the impedance back to something like original, strangely enough this changed the AF output to make it a much more crisp signal - good for comms; use - than previously. This was a bonus reaped from the repair job and so it was left as was. Total cost of the repair was 50 pence for the 'new' speaker and a couple of hours of 'labour' by Tony himself. Thought has been given to trying some kind of L and C filtering in the leads to this speaker but that will be for a later date, the set is in daily use and time for the necessary testing is limited. Ian.

- - - -  
- SFERICS -

Ray mentions that having used bathroom sealant to seal the ends of his aerial feed co-axial cables several weeks ago he now finds that he has to do the whole job over again.

The ends of the coax, both ends, are now nothing more than green slimy liquid which has corroded the copper wire and the polythene insulation. Both ends are now prolific producers of noise and are leaky to RF AND DC. There is a pronounced smell of vinager when the joints are opened up.

New joints are being made without this sealant, relying solely on the sealing properties of 'heatshrink tubing' and these will be assessed after a few weeks.

A comment from an EUGer to the effect that whilst his original 640 has no chrome handles, the newly acquired one does have them. Photos do not show them, so what is 'normal' ?

Some versions of the 750 had a built-in 'S' meter, so says Bryan. This has come up before in mail to EUG but despite the recent 'new to us' info on this model I have yet to find any proof of the existence of such a version of the 750. But then ....who knows what might come to the surface in the future.

No ! Contrary to what you might find in published catalogues or sales literature, there was no rack-mount version of the 1002. This was an 'enhanced broadcast receiver' only. The 1004 was the rack-mount model of this series.

In the last issue my comment re the error in the published 850/4 manual has produced several letters. Ian says that he

has re-aligned his 850 twice since getting it in 1982 and whilst he did not notice the manual error to begin with he did get funny results and then checked up, and saw the transposed columns in the table. Colin however has done no work on his and only now has he read the manual thoroughly, amending the table in the process - being prepared for any future alignment that he may need to perform.

The 940, some recent mail indicates that some of this model series are having trouble with smoothing e'lytics. They appear to have come of age in that some are going leaky, overheating and blowing up. In one case (John) with quite noisy and messy results. For Alan it was simply a case of burned out feed resistors. In other cases reported the resistors or diodes have expired with no outward indications from the e'lytics. these when tested have shown up as having quite a low internal resistance.

Graeme's analysis of the EUG membership is interesting in that I have for a long time noticed the preponderance of Welsh members, what to say ? Being of Welsh origin myself I guess that we must know a good thing when we see it.

From Bill we have the tip, do not throw away your old valve set when you are doing a complete revalve job on your Eddystone. He had them tested some time later by a fellow club member (local radio club) and found that whilst some were low in emission others still had useful life left in them. These have been stored for the eventuality of one of those currently in the set going faulty.

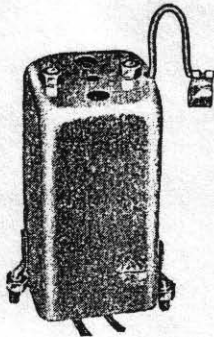
The extension of the European Medium Waveband appears to have gone pretty well un-noticed by most people. James has heard several low power signals but only one good identifiable station and that is from Spain on about 1656 Kc/s. He comments on the several stations to be heard late in the evening from the USA, but has not yet had positive IDs on any. See Graeme's comments on page 8 of issue 47.

Still plenty of morse on the marine bands, listening on 500 Kc/s will still net you some intership traffic, but do try tuning either side of the frequency since they do tend to go up or down by as much as 10 kc/s to clear other QRM.

Remote locking devices for cars, believe this if you will but Dave tells us that his Ford had all doors unlocked recently by a nearby lightning flash. At the same time his video and Tv needed complete reprogramming. The S.358X was unaffected and continued to be in use all evening, the only working radio/Tv equipment in the house after the storm. Repairs to the 'modern' stuff were costly and took time - getting the men called out. So, one up for the old 'bottles' again. Maybe we should all have a valve radio for emergency use.

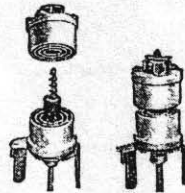


# Components of Merit



### B.E.A.T. FREQUENCY OSCILLATOR UNIT

For 450/470 Kc/s. Aluminium can measures 2 3/4 in. high by 1 1/2 in. square. For use with 6J7 valve. No. 1119, 8/6



*PHILIPS?*

### S.W. AIR TRIMMER

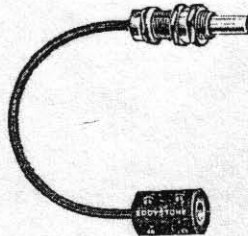
A compact trimmer condenser with capacity variation of 1-30 mmfd. Finely graded control and constant setting. No. 1100, 1/3



### INSULATED BRACKET

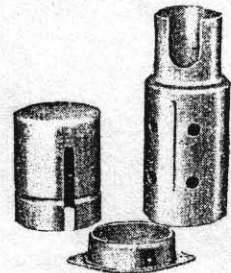
DL9 insulation and brass base. Fixing centre height 1 1/2 in. No. 1116, 1/3

WRITE FOR ILLUSTRATED 1939 CATALOGUE . . . . . FREE ON REQUEST



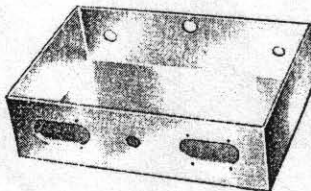
### FLEXIBLE DRIVING SHAFT

For front panel control of awkwardly placed components. Drives through 90 degrees perfectly. Cable length 5 1/2 in. No. 1096, 3/6



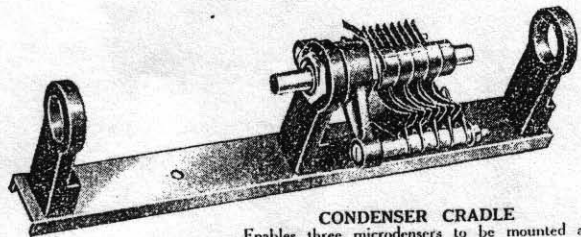
### ALUMINIUM VALVE SHIELD

Standard hole fixing for standard type chassis mounting 4-, 5-pin and octal valveholders. No. 1121, 1/3



### DIECAST ALUMINIUM CHASSIS

Strong and rigid construction. Measures 8 1/2 in. x 5 1/2 in. x 2 1/4 in. deep. Two terminal panels provided. No. 1117 . . . . . 5/6 Undrilled metal panel, No. 1118, 1/9



### CONDENSER CRADLE

Enables three microcondensers to be mounted as three gang condenser unit. Rotors and stators completely isolated. Brass division plates available for screening condenser units. No. 1114, 3/6. Metal screens, No. 1125, 8d. pair.

# EDDYSTONE

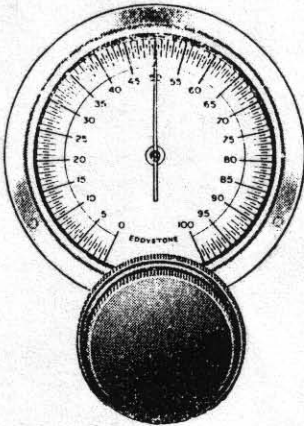
# SHORT WAVE COMPONENTS

Sole Manufacturers: Stratton & Co. Ltd., Bromsgrove St., Birmingham  
London Service: Webbs, 14 Soho St., W.1

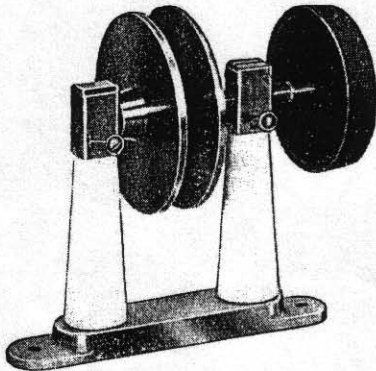
# COMPONENTS OF QUALITY



Low loss H.F. choke with DL9 former  
Wave range 5/180 metres.  
Cat. No. 1010. Price 2/-



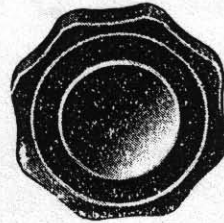
A full vision dual speed dial with 20 : 1  
and 100 : 1 speeds. Well graduated  
scale, reading increasing as frequency  
increases. For 1/2-in. panel and 1/4-in.  
spindles. Ideal for H.F. tuning.  
Cat. No. 1070. Price 8/9



Neutralising condenser for transmitting  
circuits, using modern low capacity short-  
wave valves. Capacity variation 2 1/2 mmfd.  
Cat. No. 1067. Price 12/6

**STRATTON & CO., LTD.**  
BROMSGROVE STREET, BIRMINGHAM.  
London Service Depot: Webbs Radio,  
14 Soho Street, Oxford Street, W.1

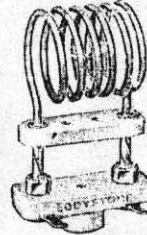
High grade 2 1/2 in.  
instrument knob  
for 1/2-in. spindles.  
2 set screws 90°  
apart ensure  
permanent set-  
ting on instru-  
ment spindle.  
Cat. No. 1076.  
Price 2/-



Ultra short wave coils wound  
with 14 gauge H.C. electro-  
lytic copper wire, and heavily  
silver-plated. Frequentite  
base allows easy coil changing.  
Cat. No. 1050.

- 3 turn ... .. Price 1/6
- 4 turn ... .. Price 1/6
- 5 turn ... .. Price 1/7
- 6 turn ... .. Price 1/8
- 8 turn ... .. Price 1/10

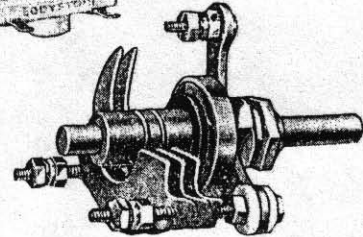
Frequency base for above.  
Cat. No. 1051. Price 1/-



Microdensers for ultra high fre-  
quency and general short-wave  
use. All-brass construction.  
Soldered vanes. A low series re-  
sistance. Calit insulation. 1/4-in.  
spindle, extended for ganging.  
Cat. No. 900/20 ... Price 3/9  
900/40 ... Price 4/3  
900/100 ... Price 5/-



Pillar insulator made of  
glazed Frequentite and  
tested to breakdown  
voltage of 30,000. Ideal  
for transmitting and high  
voltage work. Three-  
hole fixing.  
Cat. No. 1049. Price 1/6



Trans-  
mitting  
condensers  
with alu-  
minium  
vanes.  
High voltage  
types have Fre-  
quentite insulation,  
and low voltage  
types DL9 insulation.

- |          |  |       |
|----------|--|-------|
| Cat. No. |  | Price |
| 1078.    | High Voltage .0001 single capacity ... | 32/-  |
| 1080.    | High Voltage 40 x 40 split stator ...  | 35/-  |
| 1082.    | Low Voltage .0001 single capacity ...  | 14/6  |
| 1081.    | Low Voltage 50 x 50 split stator ...   | 17/6  |

# EDDYSTONE

# SHORT WAVE COMPONENTS

SEND FOR OUR FULLY ILLUSTRATED COMPONENT CATALOGUE. FREE ON REQUEST.



- The Everyman Two Transmitter -

A new one ? Well not really, this appears in the BP Register as BP590 dated 1946 and it is a mystery to me. Never heard a thing about it, nor has Graeme. He is however trying to get some info on this and we may just be able to feature it in the N/L someday.

- - - - -  
- The S.750/2 -

Some update here, according to the Register this was a Marconi version and it was given the Marconi designation of Model HR100. Does anybody have one ? Please can you tell us in what way it differs from the plain 750 ?

- - - - -  
- The LMT 3321C -

Well here I hate disagreeing with Graeme and his sources but according to the Register this LMT 3321C is an S.700/1 and the model numbering scheme seems to fit with the system used by MIMCO, i.e. the EM34/S.954/MIMCO 3873A. But then what is the LMT bit ? Maybe Lxx Marconi Telegraph ? Any help with this query please. This means we have model S.700 alias IMR54 alias LMT3321C. My copy of the original Blueprint, received from Peter Lepino, gives the information that it was drawn by D Bates, checked by B Cooke in November 1951, but the register BP 807 is dated January 1953 and this 700/1 may indicate a later version of the one that went to STC.

It would be more comprehensible if the Blueprint Register had MWT for Marconi Wireless Telegraph but it is a very definite LMT, so was there such an offshoot of Marconi ? I seem to have very faint recollections of hearing about a London Wireless Telegraph Company in the -50s era but cannot recall more than that.

- - - - -  
- The S.358 -

Now here is an interesting find. In my original water and fire damaged copy of the Servicing & Operating instructions dated 21/7/1941 for the S.358 the list of valves given contains two columns. One for Mullard types (EF39, ECH35, etc;). the second column for the Marconi/Osram range (KTW73, DH73 etc;). However an addendum states clearly that the mixer in both cases must be the Mullard ECH35 and never a 6K8G. It adds, "for this receiver the 6K8G must not be considered a suitable equivalent for the ECH35 valve." This sort of tells those of you who have written about your 358 having a 6K8 fitted, just what to do. Buy an ECH35 pronto. I have said before that in domestic use we often used the two types indiscriminately, but I guess we were wrong to so do. Mind you I have seen equivalent lists in the past were they were quoted as straight swaps. Okay Steve now you have it.

- The 930 Series -

Just a bit of info here gleaned from an old Factory Receiver list of 1960.

The known versions listed are as follows;-

930	- 70 to 90 Mc/s	one range.
930/1	- 100 to 120 Mc/s	" for M.C.A.
930/2	- ?	
930/3	- ?	
930/4	- 70 to 90 Mc/s	" for M.o.D.
930/5	- 100 to 120 Mc/s	" for M.o.S. & M.o.D.
930/6	- 27 to 28 Mc/s	" for Met Office.
930/7	- ?	

The above info seems to be pretty safe coming as it does from Factory sources of the era. The M.C.A was the then Ministry of Civil Aviation. Likewise the M.o.S was the then Ministry of Supply.

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- Prices, in 1960 -

A price list for some current receiver models as shown at the IEA Exhibition of 1960, where Strattons/Eddystone had Stand number K.450. Interesting reading indeed, for the likes of me, maybe for other EUGers too, so here goes.

S.680X	- ±105-0-0d.
S.840A	- ±41-5-0d.
S.670	- ±18-0-0d & Purch; Tax of £10-16s.
S.888A	- ±82-10-0d.
S.670A	- ±35-1-3d plus P.Tax of £17-10-7d.
S.770R	- ±185-0-0d.
S.770U	- ±250-0-0d. (wow ! price of a house).
S.730/4	- £180-0-0d.
S.730/6	- £190-0-0d, plus crystals @ £16-0-0d.
S.930	- £70-0-0d.

The 770 and 680 sets could be supplied for rack mounting at an extra £2-10-0d per set. All prices carried a £1-0-0d charge for the wooden packing crate, returnable for a refund.

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- Earthing -

There are two reasons for earthing your radio/wireless, the first applies to your radio AND for that matter any electrical equipment.

SAFETY purposes. The use of a good low resistance earth will conduct away safely any electrical currents generated by faults on your equipment.

It is in fact illegal to operate any electrical equipment without having an earth connection.

The second reason, in the case of radio equipment, is that

the earth connection completes the signal path for those microscopically small radio frequency signals picked up by the aerial. These signals travel through the aerial input circuit of your radio to earth.

The use of a mains earth connection is usually quite good enough for most equipment but this mains earth connection carries a lot of locally generated radio frequency 'noise' in the form of clicks from switches, from thermostats, and motor commutators as in vacuum cleaners etc: This noise all contributes to increase the noise in your radio receiver. Noise picked up by the aerial itself and that generated in the circuitry.

Good practice for the efficient, safe and low noise operation of radio equipment is for the provision of a separate, low resistance, earth. This is usually provided by one or more buried copper rods or plates. These should be buried in the ground as close to the operating position as is possible.

Rods or plates buried in soft moist earth are usually of low resistance and hence almost free of locally generated noise.

Where the soil is dry or of clayish consistency then frequent watering of the soil around the earth rods or plates will assist in keeping a low resistance in the earthing system.

When such a system is in use it is necessary to disconnect any other mains earth connection for correct operation.

Under no circumstances should a domestic gas pipe be used as an electrical or radio earth. (From an article in a 1978 Radio Hobbies Magazine, received from Sam Noone.)

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- Those Six Pin Coils -

Ron Hall writes in a propos the above Eddystone coils, and the matching bases.

Ron says that contrary to his previously held belief RAYMART did make plug in coils using the Eddystone type of six pin base and that this now lends credence to the idea that the base/pin format was a Standard used by other manufacturers besides Eddystone. Any more ideas out there ? Please write me.

Ron states that whilst purchasing his coils and base he also purchased some Indigraph tuning dials as per p.34 of the issue for August -97, No; 44. These still carry old callsigns of the prewar era, i.e. 5GB and 1AC, others too but smudged by attempts at erasure.

Regarding the N/L item on digital frequency readouts for Eddystones, Ron tells us that Mainline Electronics advertising in the Radcom for March -98 offer suitable units. I have not seen this myself so check on the suitability for YOUR set.

- - - -  
- ENDIT - ENDIT - ENDIT -

That is IT, wonder how many times I typed ENDIT on an old Creed 7B in the '50s ?

This is our first attempt at commercial printing of the N/L so I am hoping for good results. Preparing it has been easier with my copy being printed out single sided. Simon has suggested

that I send my copy on disk to him for printing out on a Laser printer but then I know my disk format does not work on IBM/PC equipment so that is a No-No, thanks anyway Simon but my Brother LW100 format seems not to work on anything else.

Enjoyed the N/L ? Then come on, articles on One side of A4, typed clearly and ready for insertion will be welcome.

This issue sees the EUG staff being increased considerably by the addition of Simon and his magic digital artwork. Also by the fact that a number of as yet unnamed helpers will be employed in putting the completed Newsletters into envelopes together with the accompanying brochure, stamping the envelopes too (thirsty work). The thanks of all EUGers to all of those 'helpers'. Ted.

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### MEMBERS' LATE ADVERTS

*ATTENTION NORTH AMERICAN MEMBERS!* I have an Eddystone 830/4 needing attention, to sell or exchange for a simpler working SW Rx. I am a 'new' SWL and have bitten off more than I can chew.... I bought it to 'learn' on, but it isn't a beginners' set! I have forgotten to give my phone number, but I am Stefan Szrajer, and can be found at: 229 Lakeside Drive, Ontario, P1A 3E2, CANADA.

FOR SALE: Eddystone 730/4; electrically perfect, flywheel slips. Very good order otherwise. Offers c. £100. Also 20mc/s dual trace solid state 'scope, excellent condx, offers c. £150. Also Wayne-Kerr B421 RCL Bridge (solid state) excellent condx, offers c. £75. Other items available. Prefer buyers inspect and collect. Pound notes only please; no cheques. Call Wally Barker, G3WAL (Rugby) 01788 570 385.

WANTED: Eddystone EA12 in exchange for computer equipment, Eddystone 940, or cash. FOR SALE on behalf of OAP; Eddystone 730/4, £100, and GecoPhone Crystal Set c. 1926 in good condx, £120. Garry GW8BNL, 01633 423904.

FOR SALE: Eddystone 770U MkII, £70. 770R, £80. Marconi HR22, 2-30mHz, independent sideband Rx, locks on signal, £200. All in nice condx with handbooks. Call John Price (Oxted, Surrey) 01883 717 484.

### NEXT EUG NEWSLETTER DUE IN AUGUST

PLEASE SUBMIT LETTERS FOR TED MOORE  
AND FEATURES FOR THE NEWSLETTER  
via JIM MURPHY, 63 WROSE ROAD, BRADFORD BD2 1LN.

ORDERS FOR HANDBOOKS, BACK NUMBERS, etc.,  
to GRAEME WORMALD G3GGL at  
the address given on the front cover.