

Scales of Stores Mk. 121 and Mk. 122 Country of origin: England

In conclusion to WftW Supplement Chapter 334, two interesting documents pertaining to the Mk.121 and Mk.122 were scanned and reprinted in this chapter. It is particularly intriguing to note that all items were assigned an Army VAOS Stores number.

W.O. Code No.12105
SIGNAL EQUIPMENT CARD NO.2499

RESTRICTED

The information given in this document is not to be communicated, either directly or indirectly, to the press or to any person not authorized to receive it.

SCALE OF STORES FOR
WIRELESS STATIONS, NO.122

(i) This card contains a list of stores, tools and replacement spare parts provided with this Equipment. This list should always agree with A.F.G1098 Schedule No. 2499

(ii) Items shown in the "x" column are essential and will always be issued to you with the equipment. Items shown in the "y" column are either not essential for immediate operations or may be improvised, and they may therefore, sometimes not be issued with the equipment but sent "to follow" it.

(iii) Amendments to this card will not be issued, but the items should be checked with the up-to-date and amended A.F.G1098 Schedule No.2499 held at unit or sub-unit headquarters. Any alterations made to A.F.G1098 Schedule No.2499 should be copied on this card, which is not an authority for demanding. Demands will be made on the A.F.G1098 Schedule only.

| Cat. or Part No. | Designation | Quantity | |
|------------------|--------------------------------|-----------|-----------|
| | | "x" Items | "y" Items |
| 1 | 2 | 3 | 4 |
| | SIGNAL EQUIPMENT CARD No. 2499 | - | 1 |

KEEP THIS CARD WITH YOUR EQUIPMENT - ALWAYS

DN 5115/8

RESTRICTED Page 3

APPENDIX A
CASES, SPARE PARTS, No. 48, FILLED
(Z1/ZA49200)

| 1 | 2 | 3 |
|------------------|--|-----|
| | SECTION F1 | |
| FA13432 | IRONS, Soldering, instrument, straight, broad tip, 2½-oz. | 1 |
| FA15855 | PLIERS, Insulated, 5½-in. prs. | 1 |
| FA16770 | SCREWDRIVERS, Electrician and signallers, 2½-in. | 1 |
| | SECTION X2 | |
| XB20779 | KITS, Adaptor, lamp holder and plug (Set of parts to facilitate connection to any mains circuit) | 1 |
| X951138 | LAMPS, Fil., 6.3-V., 0.95-W., M.E.S., clear | 1 |
| | SECTION Y1 | |
| YA11013 | EARPHONE ASSEMBLIES, H124A prs. | 1 |
| YA11023 | EAR NIPPLES, Plastic, 13/32-in. dia. x 13/32-in. | 2 |
| | SECTION Y3 | |
| WB3735 | PERSPEX SHEET, 5/32-in. (a) (For winding on 120-ft., P.V.C., aerial wire) | - |
| 6145-99-911-0168 | WIRE, Electric, equipment, type 2, 77.0076 P.V.C., medium wall, black. (Aerial wire) ft. | 120 |
| | SECTION Z | |
| Z/CV1833 | VALVES, Electronic - CV.1833 | 1 |
| Z/CV3883 | CV.3883 | 1 |
| Z/CV3888 | CV.3888 | 2 |
| Z/CV3889 | CV.3889 | 1 |

DN 5115/8

Page 2 RESTRICTED

| 1 | 2 | 3 | 4 |
|------------------|---|---|---|
| | SECTION Z1 | | |
| ZA49200 | CASES, Spare parts, No.48, filled (Appendix A) | 1 | - |
| ZA49864 | WIRELESS SETS, No.122, Kits, No. 1 (Appendix B) | 1 | - |
| | SECTION Z9 | | |
| 6140-99-910-1519 | BATTERIES, Secy., lead acid, 6-V., 85-Ah. (Includes one spare) | 2 | - |
| | PUBLICATIONS | | |
| | ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS - Tels - | | |
| | F.760 (To be demanded) | - | - |
| | F.762 in accordance | - | - |
| | F.763 with A.C.I.62/54) | - | - |
| | I.E.M.E., Parts list, E.S.3242 (Issued on a scale laid down by War Office, obtained from Army Publications Depot, Kimber Rd., Wandsworth, S.W.18) | - | - |
| | USER HANDBOOK, Wireless Stations, No.122 | 1 | - |

DN 5115/8

Page 4 RESTRICTED

APPENDIX 'A' - (Cont'd)

| 1 | 2 | 3 |
|-----------|---|---|
| Z/CV 3990 | VALVES, Electronic - CV.3990 | 1 |
| | SECTION Z1 | |
| ZA 49402 | ADAPTORS, Crystal, 2-pin, 1.1/8-in. x 1.1/8-in. x ½-in. | 1 |
| ZA49399 | CASES, Metal, 12.23/32-in. x 8.21/32-in. x 2.27/32-in. | 1 |
| | CONNECTORS - Twin - | |
| ZA49395 | No.413, 25-in. (Vibrator input lead) | 1 |
| ZA49394 | No.412, 12-ft. (Mains lead assembly for Wireless sets, No.122) | 1 |
| ZA49396 | 4-point, No.110, 46-in. (Vibrator output lead) | 1 |
| ZA49400 | COVERS, Metal, 12.23/32-in. x 8.21/32-in. x 1.1/16-in. | 1 |
| | FUSES CARTRIDGE - | |
| ZA3586 | No.1, 2-amp. | 4 |
| ZA44930 | No.12, 2-amp. | 2 |
| ZA49405 | INSERTS, Moulded rubber, 12.39/64-in. x 8.25/64-in. x 2.7/8-in. | 1 |
| ZA28381 | INSULATORS, W.T., shackle, 1½-in. No.1 | 2 |
| ZA49403 | MAINS TESTER, Neon, No.1 | 1 |
| | PLUGS - | |
| ZA12529 | Single - No.30 | 1 |
| ZA32917 | Red | 1 |
| | 2-point - | |
| ZA14394 | No.18 (or) | 1 |
| ZA33198 | No.53 (or) | 1 |
| ZA46754 | Single, No.79- 3-mm, red and | 1 |
| ZA46755 | 3-mm, black | 1 |

DN 5115/8

| RESTRICTED | | Page 5 |
|---------------------------------|--|--------|
| APPENDIX 'A' - (Cont'd) | | |
| 1 | 2 | 3 |
| | SECTION Z1 - Cont'd. | |
| ZA49404 | REELS AERIAL, 2.5/8-in. x 2.1/8-in. x 1.1/16-in. (Spare aerial wire wound on reel) | 1 |
| ZA49406 | STRAPS, Webbing, 2-in., No.10, 36-in. (Strap for carrying Cases, spare parts, No.48, filled) | 1 |
| | SECTION Z3 | |
| ZC25483 | FUSES, Tubular, 20-amp., No.1 | 2 |
| | SECTION LV6/MT6 | |
| 3361 | SHEETS, Rubber, cellular, 1/4-in. (a) sq.ft. | - |
| (a) To be demanded as required. | | |
| DN 5115/8 | | |

| RESTRICTED | | Page 6 | |
|--|---|--------|---|
| APPENDIX 'B' | | | |
| WIRELESS SETS, NO.122, KITS, No.1 (Z1/ZA49864) | | | |
| 1 | 2 | 3 | 4 |
| | SECTION X2 | | |
| XB20682 | GENERATING SETS, A.C., 45-W., 110-V., hand/pedal driven, No.1, Mk.1 | 1 | - |
| F1/FA 11469 | Including - Cramps, carpenters, 'G' type, 2-in. | 2 | |
| XB20769 | Connectors, twin, No.414, 10-ft. | 1 | |
| XB20774 | Cranks, hand/pedal generator | 2 | |
| XB20773 | Handles, hand/pedal generator | 2 | |
| XB20771 | Haversack, hand/pedal generator | 1 | |
| XB20770 | Hook and chain assembly | 1 | |
| XB20772 | Pedals, hand/pedal generator | 2 | |
| | SECTION Y3 | | |
| 6145-99-910-0179 | WIRE, Electric equipment, type 2, 14/.0076 P.V.C., medium wall, black (a) yds. | 4 | - |
| | SECTION Z1 | | |
| ZA49398 | BAGS, Waterproof, Wireless sets, No.122 | 1 | - |
| ZA49397 | CASES - Carrying, Wireless sets, No.122 (Transit case for carrying Wireless sets, No.122 and contents of Cases, spare parts, No.48, filled) | 1 | - |
| DN 5115/8 | | | |

| RESTRICTED | | Page 7 | |
|------------------------|---|--------|---|
| APPENDIX 'B' - Cont'd. | | | |
| 1 | 2 | 3 | 4 |
| | SECTION Z1 - Cont'd | | |
| ZA49200 | Spare parts, No.48, filled (Appendix A) | 1 | - |
| ZA49199 | SUPPLY UNITS, Vibratory, No.14, 6-V. Including - | 1 | - |
| Z3/ZC 25483 | Fuses, tubular, 20-amp, No.1 | 1 | |
| ZA48490 | Vibrators, non-sync., shunt driven, 6-V. | 1 | |
| ZA49198 | WIRELESS SETS, No.122 | 1 | - |
| ZA44930 | Including - Fuses, cartridge, No.12, 2-amp. | 1 | |
| ZA49406 | Straps, webbing, 2-in., No.10, 36-in. | 1 | |
| Z/CV1833 | Valves, electronic - CV.1833 | 1 | |
| Z/CV3883 | CV.3883 | 1 | |
| Z/CV3888 | CV.3888 | 2 | |
| Z/CV3889 | CV.3889 | 1 | |
| Z/CV3990 | CV.3990 | 1 | |
| | SECTION Z9 | | |
| ZJ00231 | CHARGING SETS, Rectifier type, single circuit, 7-amp., 3-cell, No.1, Mk.1 (b) | 1 | - |
| X2/XB 20779 | Including:- Kits, adaptor, lamp holder and plug. | 1 | |
| Z9/5940-99-940-0863 | CLIPS, Electrical, bulldog, battery charging, 25A | 2 | - |
| | USER HANDBOOK, Wireless Station Stations, No.122 | 1 | - |
| DN 5115/8 | | | |

| RESTRICTED | | Page 8 | |
|---|---|--------|---|
| APPENDIX 'B' - Cont'd | | | |
| 1 | 2 | 3 | 4 |
| | SECTION Z9 - Cont'd | | |
| | USER HANDBOOK, Wireless Stations, No. 122 | 1 | - |
| (a) For making up connector for use with Charging sets, rectifier type and Batteries, secy., lead acid. | | | |
| (b) Carried in compartment of Haversack, hand/pedal generator. | | | |
| THE WAR OFFICE, ORD. 2, May, 1957 | | | |
| DN 5115/8/1211-K 500 6/57 DL | | | |

121

OPERATING INSTRUCTIONS

MARK 121

Equipment:

- a) Combined Transmitter-Receiver-A:C. Mains Power Pack.
- b) Vibrator Pack for 6v operation.
- c) Hand generator.
- d) Spares box containing:
 - (1) One pair crystal earphones
 - (2) One reel aerial
 - (3) One Neon mains voltage tester
 - (4) One OB2 voltage stabiliser
 - (5) One 2E26 beam tetrode valve
 - (6) Two ECH42 triode hexode valve
 - (7) One EAP42 diode pentode valve
 - (8) One EL41 pentode valve
 - (9) One 6.3v 0.15A pilot lamp
 - (10) One SFC6 vibrator
 - (11) Two 20A fuses
 - (12) Two 2.5A fuses
 - (13) Two 2A fuses
 - (14) One universal mains plug
 - (15) One mains lead with plug and socket
 - (16) One vibrator pack input lead
 - (17) One vibrator pack output lead
 - (18) One adaptor for miniature crystals
 - (19) One single crystal earphone connector
 - (20) Two plastic inserts
 - (21) 120 ft insulated wire
 - (22) Two egg insulators
 - (23) One pair pliers
 - (24) One screwdriver
 - (25) One soldering iron
 - (26) One yard resin cored solder
 - (27) One plug for external key
 - (28) One piece of perspex $8\frac{3}{4}$ " x 6" x $\frac{1}{8}$ " (22 x 5 x $\frac{1}{2}$) cm.
 - (29) One reel of insulating tape
 - (30) Supply of lined paper
 - (31) Three pencils
 - (32) Two yards twin flex
 - (33) One pocket knife
 - (34) One red plug
 - (35) One black plug

Total weight = { 37 lbs 10 ozs
(17 kilogrammes

SPECIFICATIONCombined Transmitter-Receiver-A.C. Mains Power Pack

Size: 13" x 9" x 3 $\frac{1}{4}$ " Weight: 12 lbs 4 ozs
(33 x 23 x 8) cms. 5.6 kilogrammes

6-volt Vibrator Pack for Battery Operation

Size: 8 $\frac{1}{2}$ " x 6 $\frac{3}{8}$ " x 3 $\frac{1}{8}$ " Weight: 7 lbs 4 ozs
(22 x 16 x 8) cms. 3.3 kilogrammes

Hand Generator:

Size: 8" x 7" x 5" Weight: 10 lbs 2 ozs
(20 x 18 x 12) cms. 4.6 kilogrammes

Spares Box:

Size: 13" x 9" x 3 $\frac{1}{4}$ " Weight: 8 lbs
(33 x 23 x 8) cms. 3.6 kilogrammes

Sockets are provided on the front panel in order that:

- (a) an external key may be used.
- (b) a standard $\frac{3}{8}$ " pin spacing crystal holder may be used or a crystal adaptor to permit $\frac{1}{2}$ " pin spacing crystal holder to be used in the crystal sockets.

A pilot lamp on the front panel denotes when the power is on.

A multi-contact plug and socket arrangement is used to feed power to the transmitter-receiver from A.C. mains, vibrator unit, or hand generator.

Five models are available: A, B, C, D and E. Their frequency coverage is as follows:-

| | | |
|---------|---|---------------------|
| Model A | : | 2.9 Mc/s to 6 Mc/s |
| Model B | : | 4.4 Mc/s to 9 Mc/s |
| Model C | : | 6.6 Mc/s to 14 Mc/s |
| Model D | : | 8 Mc/s to 17 Mc/s |
| Model E | : | 9.4 Mc/s to 20 Mc/s |

TRANSMITTER:

Power Consumption: From Mains Power Pack - key down : 65 watts
key up : 22 watts

Circuit: Crystal controlled oscillator doubler using 6L41 valve driving Class C amplifier 2E26. Oscillator doubler will accept crystals of fundamental frequency, half or one third of required frequency. Average power output : 10 to 13 watts

RECEIVER:

Power Consumption: From Mains Power Pack : 34 watts.

Circuit: Three valve super-heterodyne receiver designed essentially for CW reception.

Valves: ECH42 frequency changer, EAF42 IF amplifier and second detector, ECH 42 audio amplifier and BFO oscillator OB2 voltage stabiliser.

Intermediate Frequency: 470 Kc/s.

Sensitivity: 1 to 5 microvolts.

Selectivity: 5.5 Kc/s 6 dB down
13 Kc/s 20 dB down

Output: 20 microwatts into crystal earphones. Impedance 50 K.Ohms at 1,000 c/s.

A noise limiter is permanently connected across the output and effectively reduces impulse noise and prevents overloading of the earphones.

POWER PACK : FOR A.C. MAINS ONLY 40 to 400 cycles per second

The mains power transformer can be adjusted to accept any A.C. voltage from 100 to 250 volts in 10 volt steps.

Power Consumption: (a) standby 20 watts
(b) receive 34 watts
(c) transmit 22-65 watts.

VIBRATOR PACK: FOR 6-volt ACCUMULATOR

Power Consumption: (a) standby 3 amps
(b) receive 5 amps
(c) transmit 3.5 amps key up
10 amps key down.

HAND GENERATOR:

Supplying 6.3 volt 2.5 amp HT filaments.
370 to 400 volt 110 mAmp HT.

Internal impedance approximately 1,000 ohms.

INSTALLATION INSTRUCTIONS

The erection of an efficient aerial and earth system is of prime importance in the establishment of good communications. A reel aerial is provided for use on occasions when a temporary aerial will serve and when speed of erection is important. Alternatively a length of ^{wire} 120 ft (36 metres) is provided and from this a more permanent aerial and earth system can be made. See page 5 for further details.

A good electrical connection must be made to Earth either by using the earth rod supplied, which should be pushed into moist soil, or by connecting the earth wire to a mains water pipe or central heating system. Great care must be taken to scrape any dirt or paint off pipes and to make a firm connection to clean metal. An alternative earth system can be made by taking a length of wire similar to the aerial and suspending it underneath the aerial preferably two or three feet above the ground or across the floor of the room if an indoor aerial is being used.

Power Supply: If mains are available ascertain whether they are A.C. or D.C. A neon tester is supplied for this purpose. REMEMBER THIS APPARATUS MUST NOT BE USED ON DIRECT CURRENT MAINS SUPPLY.

The voltage can be checked by reference to the electric light meter, other electrical appliances in use or the markings on electric lamps.

Adjustment of the apparatus to the A.C. voltage available is made by removing the cover of the "Mains Voltage Adjustment" and so placing the two metal strips that they cover the figures of the voltage.

i.e. if the voltage is 210, one strip will cover 200 and the other

strip will cover 10.

OPERATING INSTRUCTIONS

The operator should make himself familiar with the following points.

RECEIVE/TRANSMIT/FORM SWITCH

With new equipment, or with equipment that has not been in recent use, this switch must be placed in the FORM position before switching on the mains. This ensures the correct reforming of the electrolytic condensers which are contained in the apparatus. The process will be completed in ten or fifteen minutes.

It is IMPORTANT that this procedure is carried out at least once per annum if the equipment is held in storage or is not in regular use.

D/PA SWITCH

The 0 position on this switch is for "DRIVE TUNING".

The other positions, 1 to 7, are for "AERIAL TUNING" i.e. for PA tuning into various aerial tapplings.

Indication for both DRIVE and AERIAL tuning is read on the same indicator meter.

FREQUENCY COVERAGE

The receiver and transmitter will only work within the frequency range shown in Megacycles on the tuning scale of the receiver. The reference letter of the model is also shown on that tuning scale.

Quartz Crystals: The transmitter will accept crystals that fall within the particular frequency range of the model or crystals whose frequency when doubled or trebled come within that range.

i.e. if the apparatus is Model D (8 to 17 Mc/s) a 3.5 Mc/s crystal could be trebled for transmission on 10.5 Mc/s but neither its double (7Mc/s) nor its fundamental (3.5 Mc/s) could be employed.

TO TUNE THE TRANSMITTER

(Already assuming that power supply adjustments have been made, aerial and earth connected and reforming - if necessary, has been completed).

1. Turn REC/TRANS/FORM switch to TRANS.
2. Turn D/PA switch to 0.
3. Insert suitable crystal.
4. Set the DRIVE TUNING and AERIAL TUNING controls approximately to the desired frequency.
5. Switch on Mains.
6. Press key and adjust DRIVE TUNING for maximum reading on meter.
7. Turn D/PA switch to position 1.
8. Press key and adjust AERIAL TUNING for maximum reading on meter.
9. Release key, turn D/PA switch to position 2, press key and adjust AERIAL TUNING again for maximum reading on the meter. Then try position 3,4, 5 and so on until the position giving maximum reading is found.

NOTE: It may be found with certain aeriels that there is very little difference in readings between say positions 6 and 7; in each case it is preferable to use the lower position as this will ensure minimum harmonic radiation.

The transmitter is then ready for operation.

TO OPERATE THE RECEIVER

1. Turn the REC/TRANS/FORM switch to REC.
2. Set the BFO pointer to its central zero line.
3. Advance the GAIN control to a suitable level.
4. Set the tuning control to the frequency to be received and search for the required signal.
When the desired station is found the tuning control should be adjusted to give the lowest pitch possible and then the BFO control adjusted either side of its zero line to give the desired note for CW reception. If interference from another station is experienced the setting of this control to the other side of the zero line should be tried. This will give the same note for the wanted station but a different note to the interfering station thus permitting the operator to discriminate between them.
When searching for a station the BFO should ALWAYS be returned to zero.

The receiver output is designed to give maximum volume for a note of approximately 1,000 c/s and the BFO control should be adjusted to approximately this frequency.

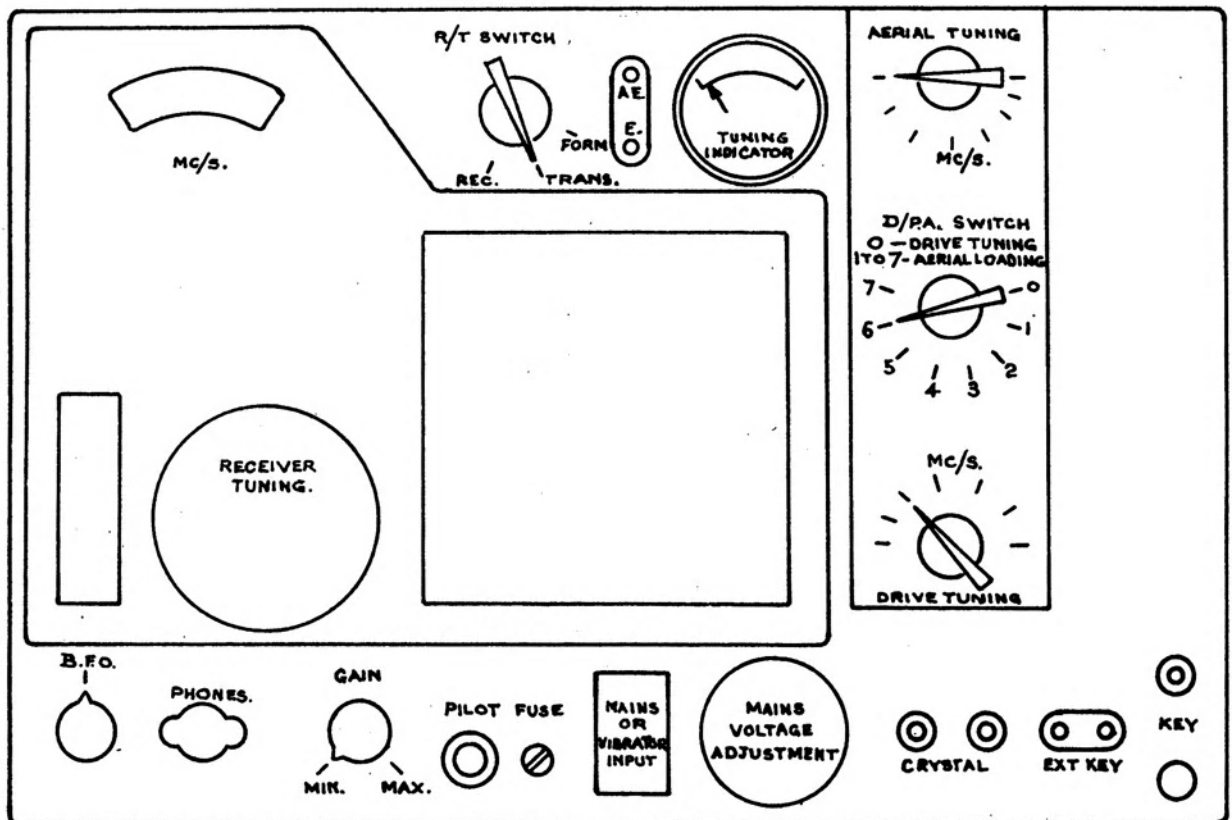
AERIALS

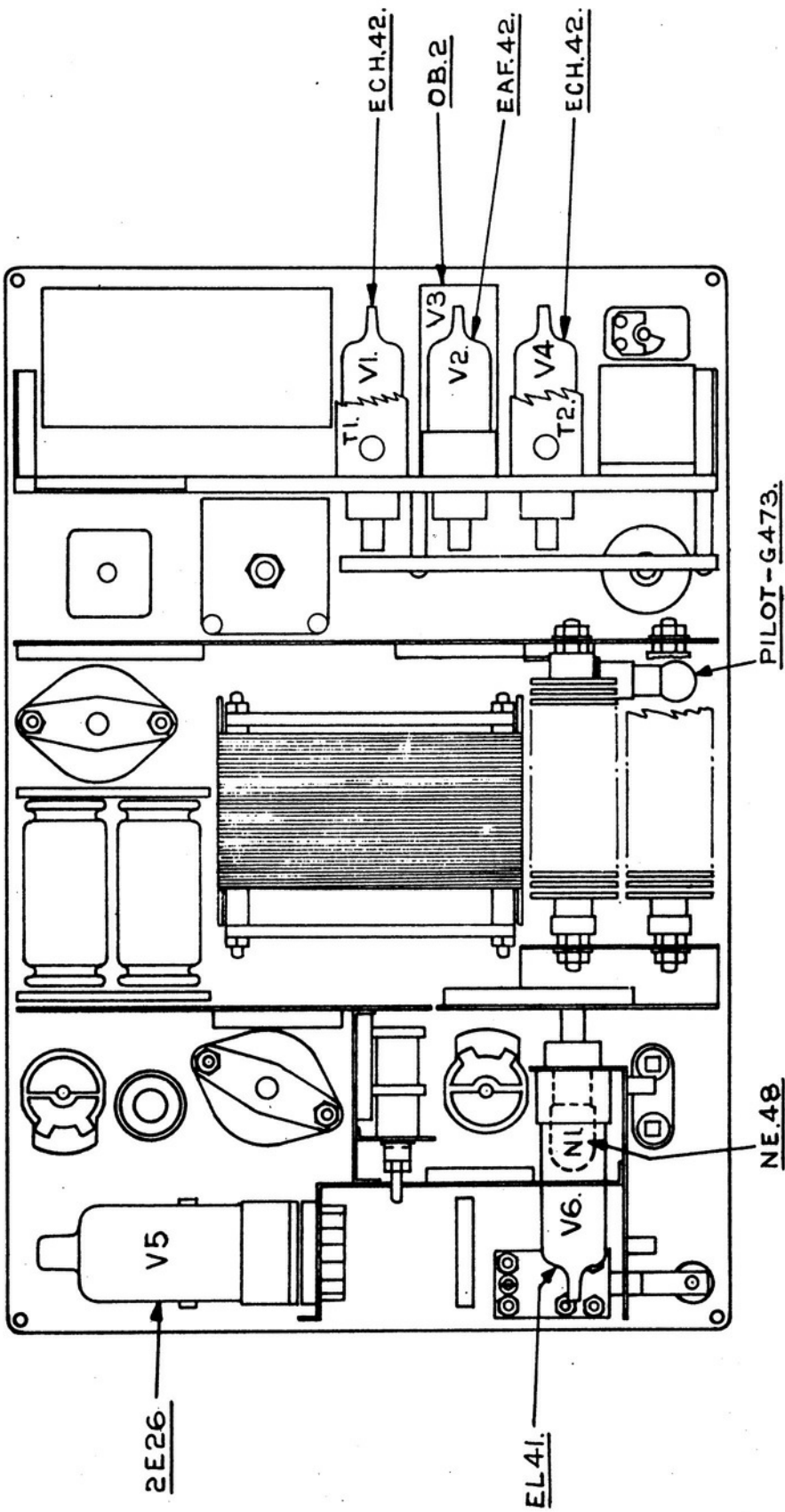
- (a) OUTDOOR AERIAL: Erect an outdoor aerial if at all possible for it will prove much more efficient than one indoors. Erect it as high as possible keeping the greatest proportion of it horizontal to the ground. In this respect remember that the "lead-in" portion counts as part of the aerial and should thus be kept as short as circumstances permit. Endeavour to keep clear of water pipes, overhead mains cables, telephone lines etc.
- (b) INDOOR AERIAL: If it is impossible to erect an outdoor aerial you must choose your premises more carefully. You must avoid working from buildings of reinforced concrete or houses with iron or lead roofs as your valuable radiation energy will be absorbed in the metal of these walls or roofs and communication rendered extremely difficult, if not impossible. The ideal is a wooden house or one of old stone or dry brick.
An aerial at least a quarter of a wavelength long (see following para) should be used and erected as high as possible in the house - preferably in a zig-zag fashion in the rafter space under the roof. If circumstances restrict activities to only one room the aerial should be zig-zagged across the room about half a meter from the ceiling. Space the wires as widely apart as possible and ensure that no part of the wire runs parallel to metal girders, electric wiring or water piping nor should the wire be doubled back on itself at any point.

LENGTH OF AERIALS: Theoretically an aerial should be cut to a certain length in relation to the frequency or wavelength being transmitted. In our work, however, when each station may have about twenty different frequencies, it is impossible to cut an aerial to an exact dimension that will give maximum efficiency on more than one or two frequencies. A good general rule is to put up as long an aerial as is possible and it will be "matched" to the transmitter through the AERIAL TUNING process.

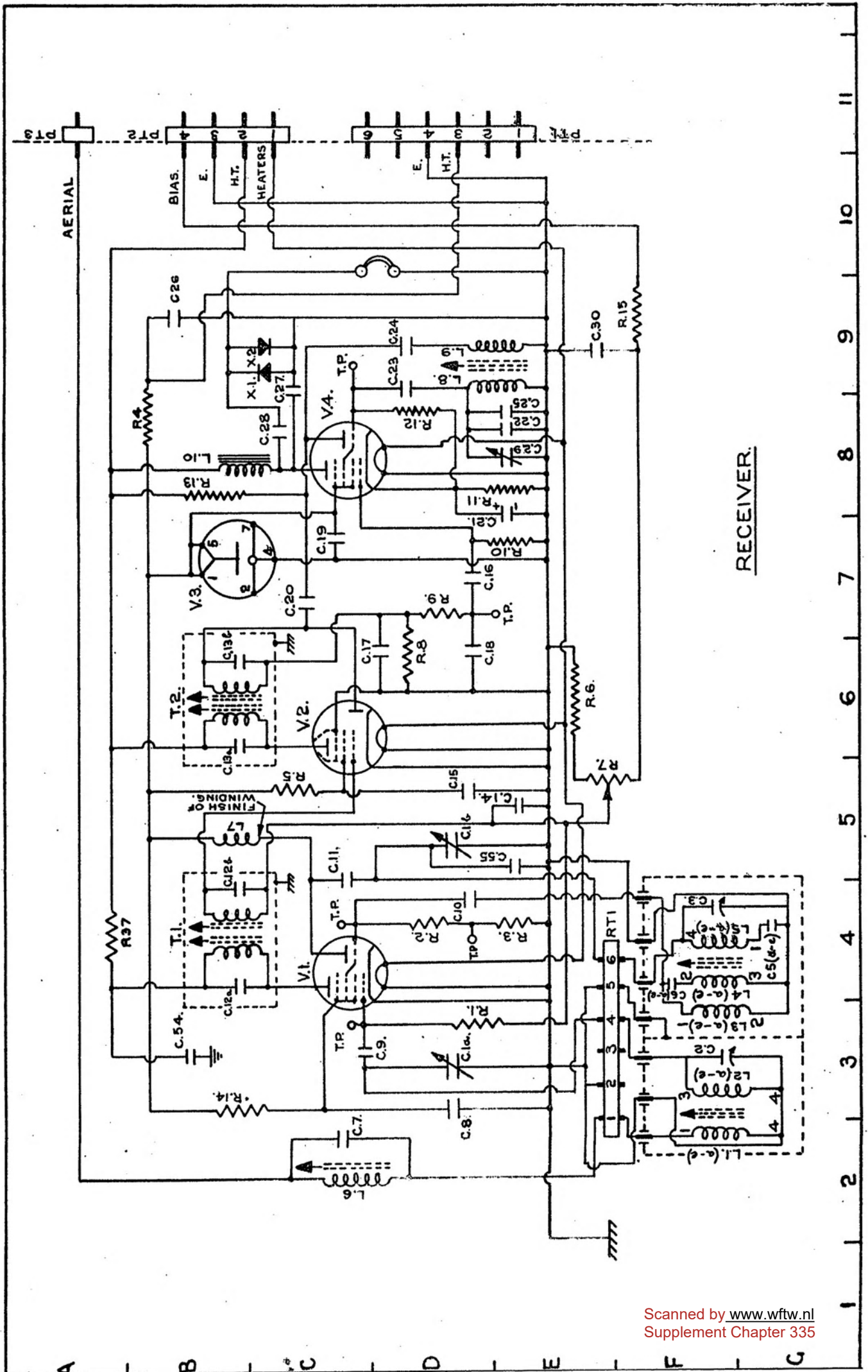
Since the power radiated from a transmitter aerial is proportional to the square of the current, it is clearly desirable to have at least one current maximum occur somewhere along the aerial. The shortest aerial which can be considered reasonable is a quarter-wave aerial.
i.e. for a transmitter working on 40 metres, a quarter wave aerial would be approximately 10 metres in length.

If circumstances permit you can make experiments with length, height and direction of your aerial in an effort to improve communication.





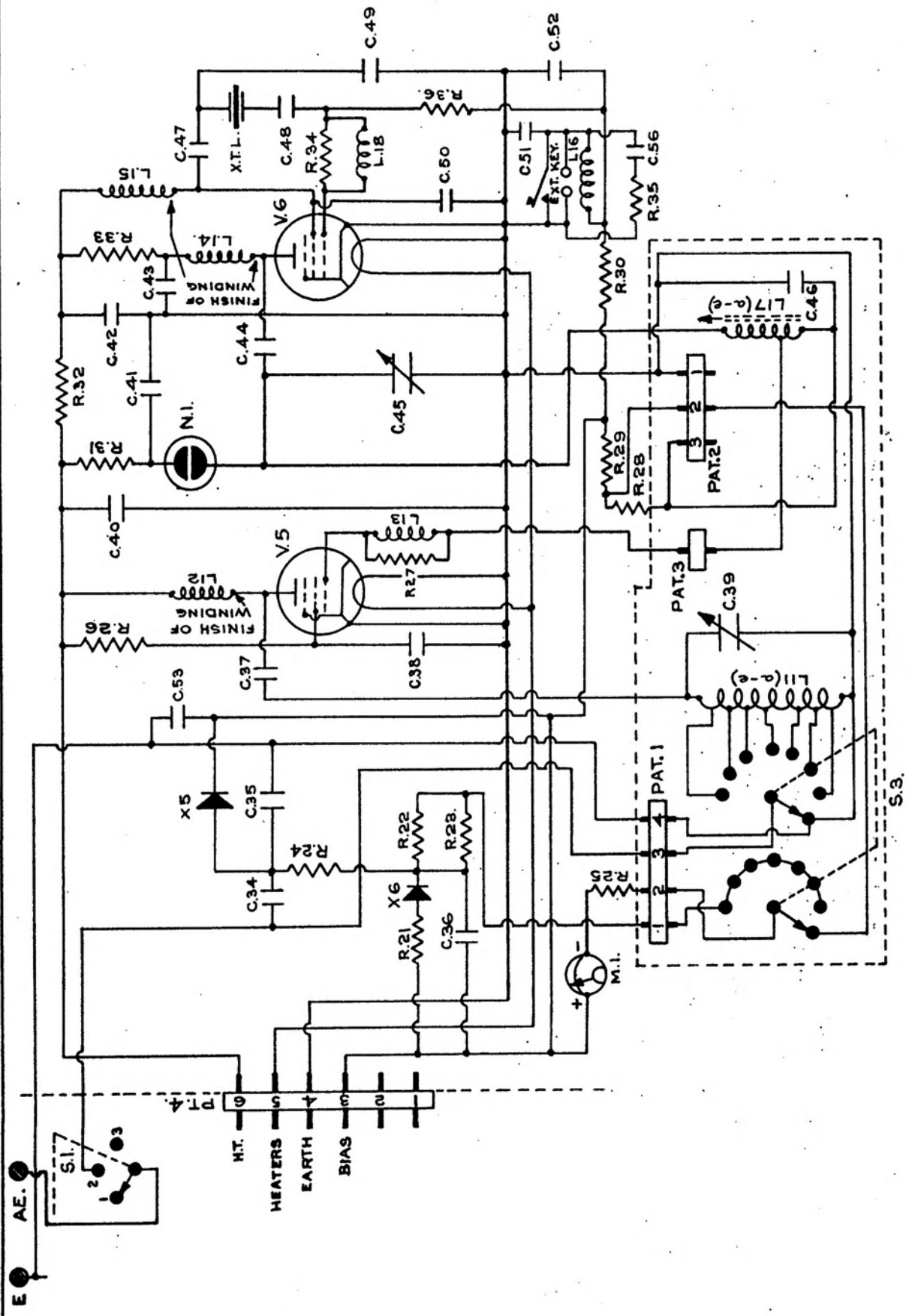
VALVE POSITIONS.



RECEIVER.

| COMP. LOCATION | DESCRIPTION | COMP. LOCATION | DESCRIPTION |
|----------------|--|----------------|---|
| R1 | 1MEG. ±5% ERIE TYPE 100. HIGH STABILITY | C14 | 0.1μf 350V T.C.C. TYPE C.P.32N |
| R2 | 47KΩ ±10% DUBILIER TYPE B.T.S. 1/4 | C15 | 0.1μf 350V " " C.P.32N |
| R3 | 1KΩ ±20% " " B.W.F. 2 WIREWOUND. | C16 | 330pf - 0 + 100% 350V DUBILIER 635 |
| R4 | 6.8KΩ ±5% WELWYN AW.3/11 | C17 | 330pf - 0 + 100% 350V " 635 |
| R5 | 4.7KΩ ±20% DUBILIER TYPE B.T.S. 1/4 | C18 | 330pf - 0 + 100% 350V " 635 |
| R6 | 8.2KΩ ±5% ERIE TYPE 9 | C19 | 0.1μf 350V T.C.C. TYPE CP.37.N. |
| R7 | 200KΩ INVERSE LOG, MORGANITE, TYPE LHM-20490 | C20 | 4.7pf ±1.5pf 750V ERIE TYPE P.100K. |
| R8 | 100KΩ ±20% DUBILIER TYPE B.T.S. 1/4 | C21 | 20μf 12V. T.C.C. TYPE CE.30.B |
| R9 | 100KΩ ±20% " " B.T.S. 1/4 | C22 | 100pf ±5% U.I.C. TYPE 401 SMP -122B |
| R10 | 1MEG ±20% " " B.T.S. 1/4 | C23 | 68pf ±20% DUBILIER TYPE S.635 |
| R11 | 560Ω ±20% " " B.W.F. 2 WIREWOUND | C24 | 68pf ±20% " " S.635 |
| R12 | 220KΩ ±20% " " B.T.S. 1/4 | C25 | 15pf ±10% 750V. ERIE TYPE N.750.K. |
| R13 | 100KΩ ±20% " " B.T.S. 1/4 | C26 | 0.1μf 350V T.C.C. TYPE C.P.37.N. |
| R14 | 2.2KΩ ±20% " " B.T.S. 1/4 | C27 | 0.02μf 350V " " CP.30.S. |
| R15 | 100KΩ ±10% " " B.T.S. 1/4 | C28 | 0.01μf 350V " " CP.33.S. |
| R17 | 2.2KΩ ±20% " " B.T.S. 1/4 | C29 | 15pf VARIABLE CYLDRON TYPE 185-15-CA1747 |
| R37 | 2.2KΩ ±20% " " B.T.S. 1/4 | C30 | 1μf 350V WKG. T.C.C. TYPE CE.30.N. |
| C1a | 2 GANG TUNING CONDENSER POLAR TYPE C70-02/11- | C31 | 0.02μf 500V T.C.C. TYPE CP.30.S. |
| C1b | 12/009 5MΩ 182pf CAP. TOL. 2% ±2pf. Q.M.T.O.L. 1/2 ±1pf. | C32 | 10pf ±1.5pf ERIE TYPE N.750.K. |
| C2 | 3.0-33pf. TRIMMER POLAR TYPE C30-01-8/0075 | L1(a-e) | AERIAL COUPLING |
| C3 | 3.5-30pf. T.C.C. TYPE T.C.K. 0330 | L2(a-e) | " " GRID TUNED WINDING |
| C5a | 1200pf ±2% " " DUBILIER 5635 | L3(a-e) | OSCILLATOR BOOSTER COIL |
| C5b | 1800pf. COMPRISING 1500 ±2% +300 ±2% " 5635 | L4(a-e) | " " GRID COUPLING WINDING. |
| C5c | 4300pf. " " 2x1500 ±5% +1300 ±5% " 5635 | L5(a-e) | " " PLATE TUNED WINDING |
| C5d | 4500pf. " " 3x1500 ±5% " 5635 | L6 | I.F. REJECTOR COIL 470KΩ Weymouth TYPE Q1 |
| C5e | 4500pf. " " 3x1500 ±5% " 5635 | L7 | R.F. CHOKE 415 μH |
| C6a | 82pf ±5% DUBILIER TYPE 5635 | L8 | BEAT OSCILLATOR GRID WINDING. |
| C6b | 82pf. ±5% " " 5635 | L9 | " " " PLATE WINDING |
| C6c | 82pf ±5% " " 5635 | L10 | 2.5HY. 3M/A. OUTPUT CHOKE WEARITE TYPE 280 OF 300 SERIES. |
| C6d | 47pf ±5% " " 5635 | T1 | I.F. TRANSFORMER WEYMOUTH TYPE P.3A. |
| C6e | 47pf ±5% " " 5635 | T2 | " " " P.3A. |
| C7 | 100pf PART OF WEYMOUTH I.F. REJECTOR. Q.1. | V1 | MULLARD VALVE ECH.42 |
| C8 | 0.1μf. 350V T.C.C. TYPE C.P.32.N. | V2 | " " EAF.42 |
| C9 | 100pf - 0 + 100% 350V DUBILIER TYPE S.635 | V3 | VALVE TYPE OB.2. |
| C10 | 47pf ±10% 350V " " S.635 | V4 | MULLARD VALVE ECH.42 |
| C11 | 1000pf ±10% DUBILIER TYPE S.635 | X1 | WESTECTOR TYPE WG |
| C12a | 110pf ±2% PART OF WEYMOUTH I.F. TRANS P.3A | X2 | " " WG |
| C12b | 110pf ±2% " " " " P.3A. | | |
| C13a | 110pf ±2% " " " " P.3A. | | |
| C13b | 110pf ±2% " " " " P.3A. | | |

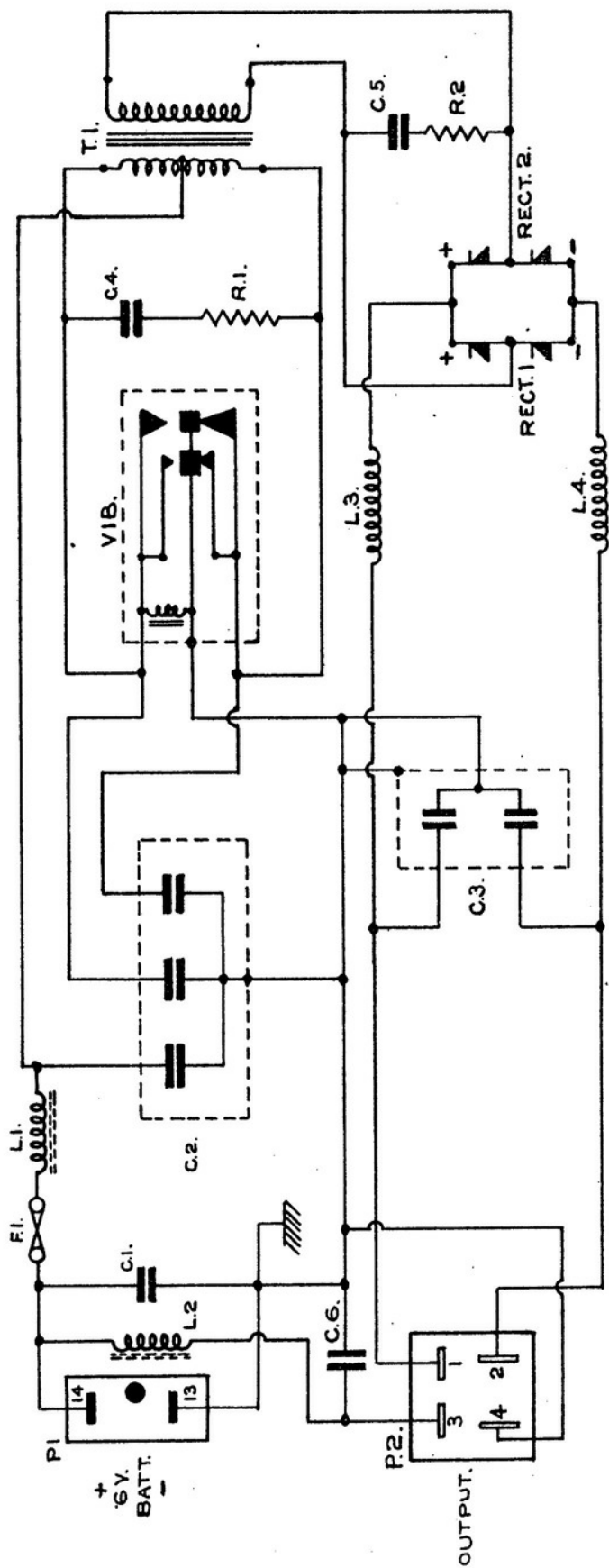
RECEIVER COMPONENTS



TRANSMITTER.

| COMP | LOCATION | DESCRIPTION | COMP | LOCATION | DESCRIPTION |
|------|----------|---|----------|----------|--|
| R21 | C4 | 68 Ω \pm 10% DUBILIER TYPE B.W.F.2. WIREWOUND | C44 | B8 | 47Pf \pm 20% 750V. ERIE TYPE N750K. |
| R22 | C5 | 1K Ω \pm 20% " B.W.F.2. " | C45 | CB | 150Pf VARIABLE POLAR TYPE CB-04 |
| R23 | D5 | 22K Ω \pm 20% $\text{Q}20^{\circ}\text{C}$. BRIMISTOR TYPE C23. | C46 | F9 | 101 μf 350V. T.C.C. TYPE CP.32N |
| R24 | C4 | 2.2K Ω \pm 10% DUBILIER TYPE B.T.S. $\frac{1}{2}$ | C47 | B10 | 100Pf \pm 20% 750V. ERIE TYPE N750L. |
| R25 | E4 | 820 Ω \pm 10% " B.W.F.2. WIREWOUND | C48 | C10 | 560Pf \pm 20% 350V. " H1-K |
| R26 | A6 | 8.2K Ω \pm 5% WELWYN. AW.3111 | C49 | D9 | 6.8Pf \pm 1.5Pf 750V. " P.100K. |
| R27 | C7 | 47 Ω \pm 20% ERIE TYPE 9. | C50 | D9 | 30Pf \pm 1.5Pf ERIE TYPE N.750K. |
| R28 | E7 | 5.6K Ω \pm 5% WELWYN. AW.3111 | C51 | D10 | .03 μf 350V. DUBILIER TYPE 412 |
| R29 | E7 | 82 Ω \pm 10% DUBILIER TYPE B.W.F.2. WIREWOUND. | C52 | E10 | .01 μf 350V. T.C.C. TYPE CP.32N |
| R30 | E9 | 100 Ω \pm 5% WELWYN AW.3111. | C53 | B6 | .01 μf 350V. " CP.32N |
| R31 | A7 | 4.0M Ω \pm 20% DUBILIER TYPE B.T.S. $\frac{1}{4}$ | C56 | E10 | 2 μf \pm 25% 150V. D.C. W.K.G. $\text{Q}71^{\circ}\text{C}$. DUBILIER TYPE 412 |
| R32 | A8 | 5.6K Ω \pm 5% WELWYN AW.3111 | L11(a-e) | F6 | RA./AERIAL COIL TRANSMITTER |
| R33 | A9 | 10K Ω \pm 5% " AW.3111 | L12 | B6 | R.F. CHOKE 350 μH . |
| R34 | C9 | 22 Ω \pm 20% ERIE TYPE 9 | L13 | C7 | P.A. GRID STOPPER |
| R35 | E9 | 100 Ω \pm 20% " 9 | L14 | B9 | R.F. CHOKE. 415 μH |
| R36 | D10 | 56K Ω \pm 20% DUBILIER TYPE B.T.S. $\frac{1}{4}$ | L15 | B9 | " 415 μH |
| C34 | B4 | 1.5Pf \pm 25Pf 750V. ERIE TYPE P.100K. | L16 | E9 | " 415 μH |
| C35 | B5 | 47Pf \pm 5% 750V. " N.330.L. | L17(a-e) | F8 | DRIVER COIL TRANSMITTER. |
| C36 | D4 | .01 μf 350V. T.C.C. TYPE CP.32N. | L18 | C10 | DRIVER GRID STOPPER. |
| C37 | B6 | 100Pf \pm 20% 750V. ERIE TYPE N.750L. | V5 | C6 | VALVE TYPE 2E2G |
| C38 | D6 | .01 μf 500V T.C.C. TYPE CP.33.S. | V6 | C9 | MULLARD VALVE EL41. |
| C39 | F6 | 150Pf VARIABLE POLAR TYPE CB-04. | S3 | F5 | 2 SECTION, 8 POSITION; AERIAL/METERING SW. |
| C40 | A7 | .01 μf 500V. T.C.C. TYPE CP.33.S. | X5 | B5 | GERMANIUM RECTIFIER TYPE CG1-C. B.T.H |
| C41 | B8 | 100Pf \pm 20% 750V. ERIE TYPE N750L. | X6 | C4 | UNIPLATE " H.7. STXC. |
| C42 | A8 | 100Pf \pm 20% 750V. " N750L. | M1 | E4 | O-500 MICROAMP METER: 180 Ω . \pm 10% TYPE MCMU. |
| C43 | B9 | 100Pf \pm 20% 750V. " N750L. | N1 | B7 | NEON LAMP, TYPE NE48 (76 SPECIFIED TOLERANCES) |

TRANSMITTER COMPONENTS.



| COMR | LOCATION | DESCRIPTION | COMR | LOCATION | DESCRIPTION |
|------|----------|---|-------|----------|---|
| R1 | B8 | RESISTOR 22 Ω ± 20% ERIE TYPE 9 | L3 | C7 | RF. CHOKE 350 μH. |
| R2 | C9 | " 2200 Ω ± 20% " 16 | L4 | D7 | " " 350 μH. |
| C1 | B3 | CONDENSER 0.5 μFD. ± 25% 150V. D.C. 71°C. DUBILIER TYPE 418 | T1 | B9 | VIBRATOR TRANSFORMER, PARMKO TO SPECIFICATION. |
| C2 | B4 | " 5x0.1 μFD. ± 20% 300V. D.C. 85°C. DUB. NITROGOLBOM #2 | VIB | B7 | 6V. VIBRATOR, WIMBLEDON TYPE S.P.C.6 |
| C3 | C5 | " 2x0.1 μFD. ± 20% 700V. D.C. 85°C " #2 | RECT1 | D8 | SELENIUM RECTIFIER D25-18-1RG. |
| C4 | B8 | " 2 μFD. ± 25% 150V. D.C. 71°C DUBILIER TYPE 418 | RECT2 | D9 | " " DB5-18-1RG. |
| C5 | C9 | " 0.5 μFD. ± 10% 1200V. A.C. DUBILIER TYPE 470A4/SP | F1 | A2 | 2 POINT PLUG TYPE JP-2-CB. |
| C6 | C2 | " 0.5 μFD. ± 25% 150V. D.C. 71°C. DUBILIER TYPE 418. | P2 | C2 | 4 " SOCKET " 500,467 |
| L1 | A4 | FILTER CHOKE (L.T.) 1.4 μH | F1 | A3 | FUSE HOLDER TYPE L356 WITH 20A. FUSE TYPE L1055 |
| L2 | B2 | " " 1.4 μH | | | |

VIBRATOR