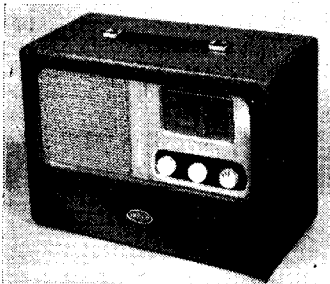
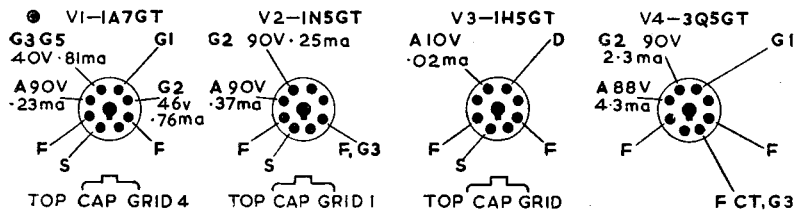
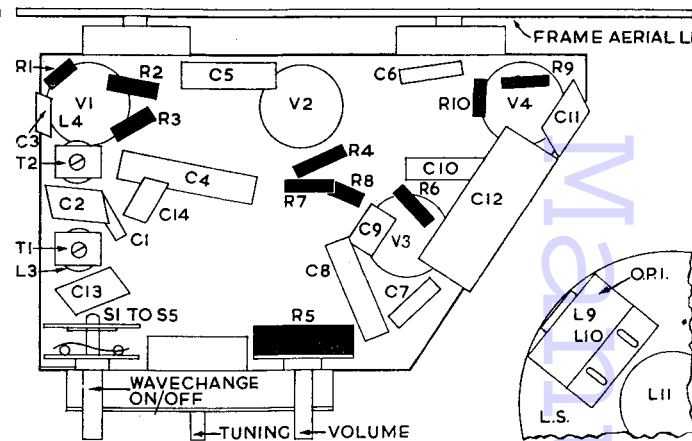
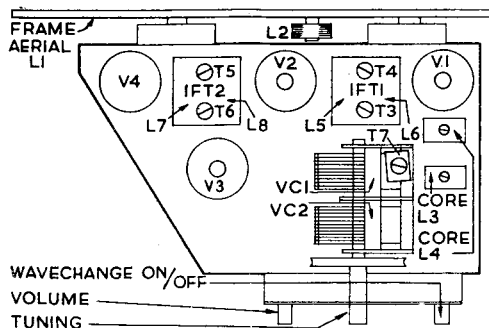


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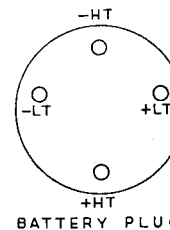
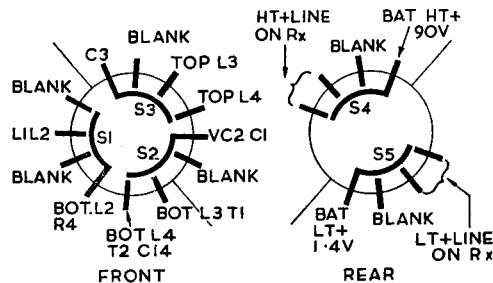
AMPLION ADP2



Four-valve two waveband portable superhet for all-dry batteries. In grey lizard or maroon-cream finished carrying case, fitted with handle. Manufactured by Amplion (1932), Ltd., 230, Tottenham Court Road, London, W1.



WAVECHANGE ON OFF SWITCH
VIEWED WITH CHASSIS INVERTED



RESISTORS

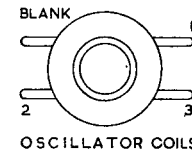
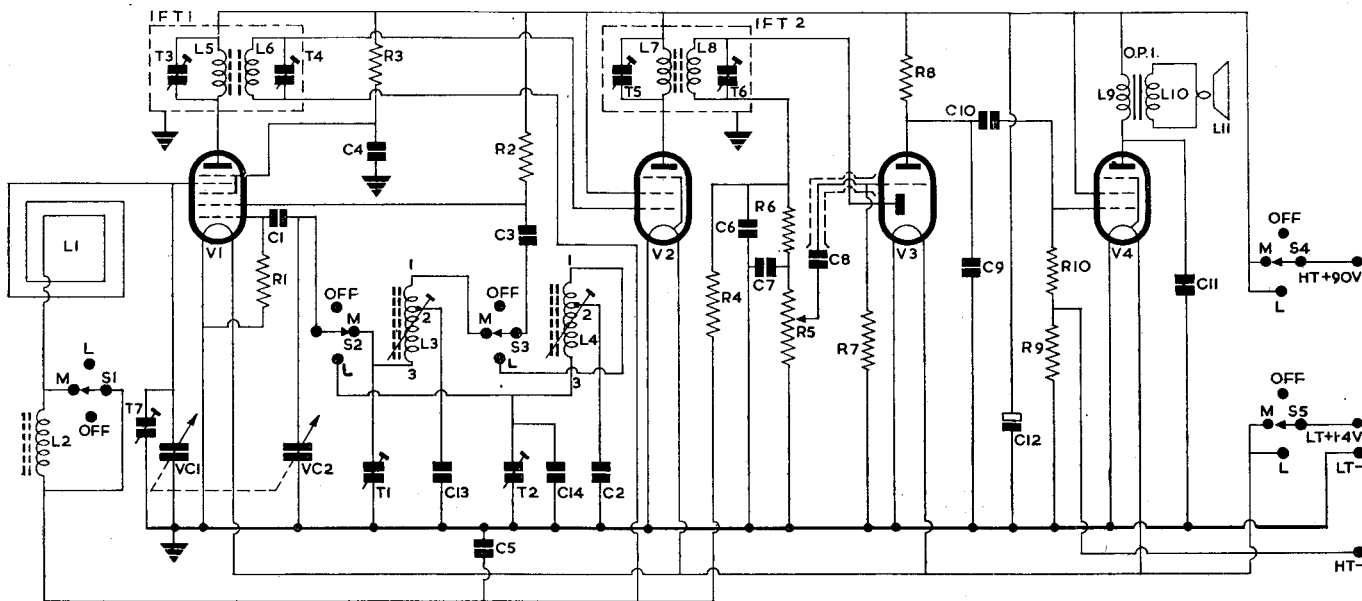
R	Ohms	Watts
1 ..	220 K	1/2 W
2 ..	22 K	1/2 W
3 ..	47 K	1/2 W
4 ..	2.5 M	1/2 W
5 ..	500 K Potentiometer	
6 ..	47 K	1/2 W
7 ..	2.5 M	1/2 W
8 ..	1 M	1/2 W
9 ..	560	1/2 W
10 ..	2.5 M	1/2 W

INDUCTORS

L	Ohms
1 ..	2.25
2 ..	13.5
3 ..	3.5
4 ..	7.5
5 ..	6.5
6 ..	5
7 ..	9.5
8 ..	9.5
9 ..	550
10 ..	1
11 ..	2.5

CAPACITORS

C	Mfds	Type
1 ..	100 pF	Mica
2 ..	150 pF	Silver Mica
3 ..	200 pF	Mica
4 ..	.1	Tubular, 350 V
5 ..	.1	Tubular, 350 V
6 ..	100 pF	Mica
7 ..	100 pF	Mica
8 ..	.01	Tubular, 1000 V
9 ..	100 pF	Mica
10 ..	.02	Tubular, 350 V
11 ..	.001	Mica
12 ..	8	Electrolytic, 150 V
13 ..	350 pF	Silver Mica
14 ..	50 pF	Silver Mica



AMPLION ADP2—Continued

CIRCUIT consists of a heptode frequency changer V1, coupled by an iron dust core transformer to an RF pentode IF amplifier V2. A second iron core IF transformer couples V2 to a diode-triode V3, used as a second detector, for AVC and as an AF amplifier. V3 is resistance-capacity-coupled to a pentode output valve V4. Output from V4 feeds into a 5-in. PM loudspeaker. High tension of 90 volts and low tension of 1.4 volts are obtained from an Ever Ready All-dry No. 3 or No. 30 battery, the latter having a longer life.

Frame aerial, L1, has approximately 23 turns of cotton-covered wire, wound on an 11-in. by 5-in. flat plywood plate, mounted at the rear of the chassis. For LW reception L1, in series with a loading coil L2, is tuned by VC1. On MW reception L2 is shorted by S1. Trimmer T7 is used for adjustment of MW only.

AVC is applied to grid V1 from R4, in series with the tuned circuits L1 and L2. C5 is the decoupling capacitor. Screen voltage is applied from R3 decoupled by C4. The primary of IFT1 (L5, T3) is in the anode circuit of V1.

Oscillator is connected in a tuned-grid parallel-fed HT circuit. S2 connects L3 (MW) or L4 (LW) across oscillator tuning capacitor VC2 and through C1 to oscillator grid. T1 (MW) and T2 (LW) are trimmers and C13 and C2 padders. C14 provides additional capacity across LW trimmer T2. R1 and C1 provide leak-condenser bias for oscillator grid. S3 switches anode reaction voltages, developed across section of L3 (MW) and L4 (LW), to oscillator anode through C3. R2 is the oscillator anode load.

IF amplifier operates at 465 Kc/s. L6, T4, the secondary of IFT1, feeds signal to grid of HF pentode V2, the IF amplifier. AVC voltage is applied through R4 and L6 to grid V2. C5 is AVC line decoupler.

Screen voltage is applied direct from HT line. The primary of IFT2 (L7, T5) is in the anode circuit of V2.

Second detector and AVC. The secondary of IFT2 (L8, T6) applies the signal to the single diode of V3. R5, the volume control, is the diode load. R6, C6, C7 form an IF filter circuit.

AVC voltages from top of R6 are fed through R4 to grids of V1 and V2.

AF amplifier. C8 feeds signal from volume control R5 to grid of triode section V3. R7 is the grid resistor. A low negative bias for the triode grid is developed on C8. R8 is the anode load and C9 anode RF bypass.

Output stage. C10 feeds signal from anode V3 to grid of pentode output valve V4. R10 is the grid resistor and R9 provides automatic bias.

Screen voltage is applied direct from HT line. L9, the primary of OPI, the output transformer, is in the anode circuit of V4. C11 is for tone correction. L10, the secondary of OPI, feeds into a 5-in. PM speaker.

High tension is supplied from the 90-V section of an all-dry battery, such as the Ever Ready No. 3 or No. 30. The total current drawn is approximately

9 to 10 mA. C12 provides adequate decoupling across the HT. S4 is the HT on/off switch ganged to the wavechange switch.

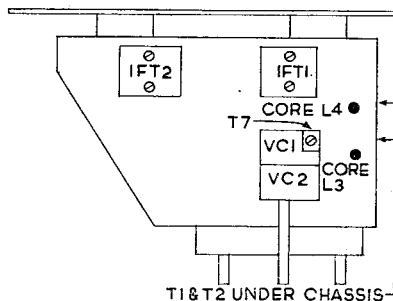
Low tension. The filaments of V1 to V4 are connected in parallel, drawing current from the 1.5V section of an all-dry battery. The current consumption is 250 mA. S5, which is also ganged to S1/S4, is the LT on/off switch.

Note.—This receiver may be issued with Mullard or Osram valves, instead of the American type found in the model tested. When this is the case, a different value of R9 may be fitted. Also the base connection to V4 may be different, in that the filament positive will be taken to pin 2 instead of pins 2 and 7 strapped together. Pin 7 will then become LT negative.

Removal of chassis from cabinet.

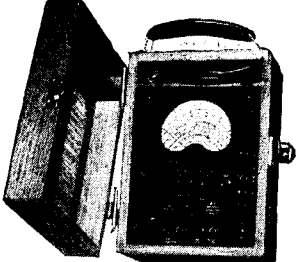
- (1) Remove rear panel of case.
- (2) Unplug battery lead and remove the battery.
- (3) Remove the two wood screws at ends of shelf on which chassis is fixed. Slide out shelf and chassis.
- (4) Loosen clamps around outer edge of loud-speaker chassis and remove speaker.
- (5) Remove the three bolts holding chassis to shelf.

Chassis is now exposed for servicing.



TRIMMING INSTRUCTIONS

Apply signal as stated below	Tune receiver to	Trim in order stated for maximum output
(1) 465 Kc/s to grid 4 V1 via .01 capacitor	Short G1 of V1 to chassis	T6, T5, T4, T3.
(2) 600 Kc/s to frame AE via loosely coupled loop	500 metres	Core L3
(3) 1.5 Mc/s, as above	200 metres	T1, T7. Repeat (2) & (3)
(4) 150 Kc/s, as above	2,000 metres	Core L4
(5) 300 Kc/s, as above	1,000 metres	T2. Repeat (4) & (5)



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