

SERVICE ENGINEER

ALBA 230 BATTERY SET

CONDENSERS		
C.	Purpose.	Mfd.
1	V1 A.V.C. decoupling	.1
2	H.T. decoupling	8
3	V2 A.V.C. decoupling	.1
4	V2 screen by-pass	.1
5	V2 triode grid decoupling	.0001
6	Long-wave padding	.0011
7	Long-wave trimmer	.000075
8	V3 grid bias decoupler	.1
9	V3 anode by-pass	.002
10	H.F. by-pass	.0001
11	V4-V5 L.F. coupling	.002
12	V4-V5 L.F. coupling	.0001
13	V3 anode coupling	.000025
14	V4 diode coupling	.0001
15	V4 cathode by-pass	.1
16	Gramophone coupling	.01
17	Bias decoupling	50
18	Tone control	.02
19	V5 anode decoupler	.005
20	H.F. coupling	.00005
21	Long-wave padder	.003

RESISTANCES		
R.	Purpose.	Ohms.
1	V1 A.V.C. bias	.5 meg (‡)
2	V2 screen decoupling	.05 meg (‡)
3	V2 triode grid bias	.05 meg (‡)
4	V2 A.V.C. bias	.5 meg (‡)
5	V3 anode decoupling	2000 (‡)
6	V4-V5 L.F. coupling	.05 meg (‡)
7	V4-V5 L.F. coupling	.5 meg (‡)
8	V3 A.B.C. bias	.5 meg (‡)
9	A.V.C. decoupler	.1 meg (‡)
10	A.V.C. decoupler	.1 meg (‡)
11	Volume control	.5 meg
12	Bia notentiometer	150 (‡)
13	Bias potentiometer	100 (‡)
14	Tone control	.05 meg

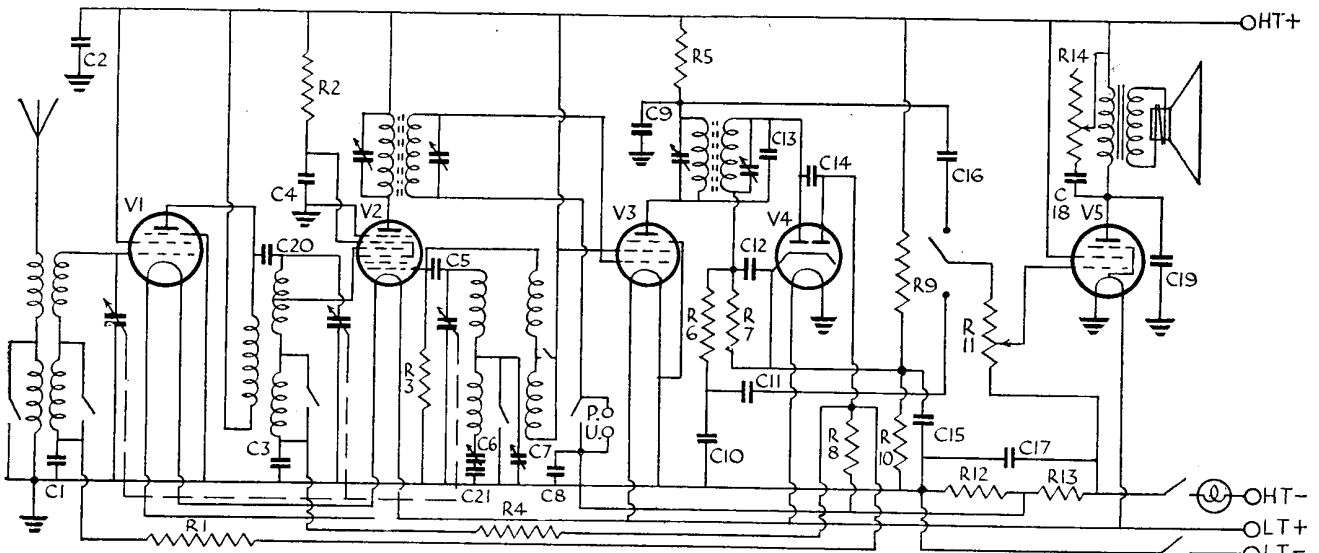
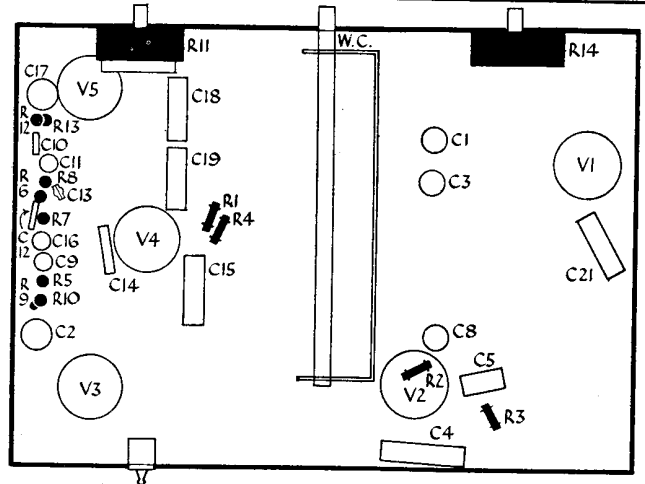
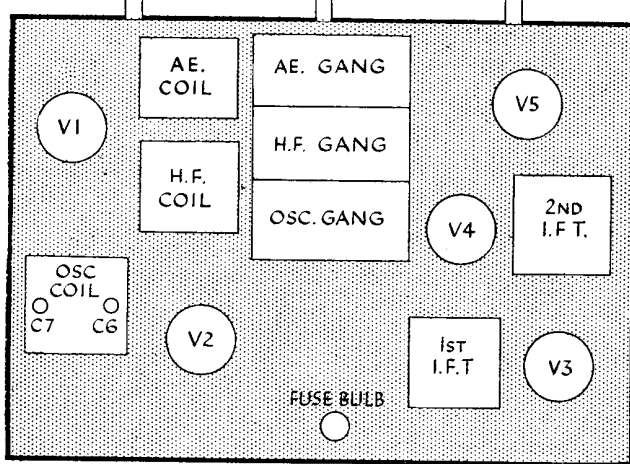
(bracketed figures denote wattage.)

CIRCUIT.—The signal from the aerial is fed to the first H.F. valve, V1, an H.F. pentode, through a tuned aerial transformer. V1 is coupled to V2, the frequency changer, by a tuned H.F. transformer.

The signal is then passed to the I.F. valve V3, an H.F. pentode, via an ironed core transformer, and then through a second transformer to the diode valve, V4, for rectification.

The L.F. output is taken through a resistance and condenser network to the

(Continued on next page.)



A first H.F. amplifier and the use of an output pentode immediately after a double diode are two points on note in the Alba 230 battery superhet. As the chassis diagrams show, the arrangement of parts is logical.

For more information remember
www.savoy-hill.co.uk

ALBA 230 BATTERY SET (Continued)

output pentode, V5, and then to the speaker via an output transformer. Tone control by a variable resistance and a condenser connected across the primary of the output transformer.

H.T. and L.T. are obtained from batteries, and bias is derived from resistances connected in the negative H.T. lead.

A.V.C. bias is applied to V1 and V2 in the orthodox manner.

Special Notes.—The external speaker terminals are on the connecting strip on the speaker transformer. They are connected to the high-resistance side of the transformer.

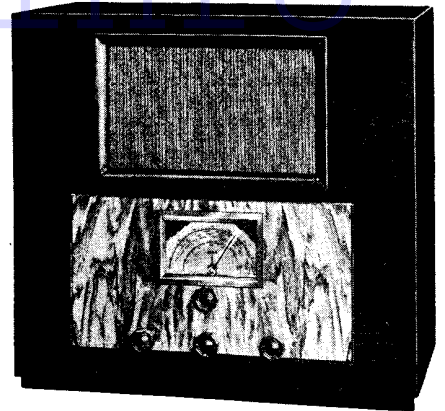
The dial lamps are 2.5 volt .2 amp. types. To remove them, turn the tuning condenser to maximum. The lamp-

holder, which is secured by a clip, will then slip out easily.

The H.T. battery is a Drydex S.55, 135 volts, and the L.T. battery a Three Star SGF3 rated at 2 volts 36 amp. hr.

Removing Chassis.—Remove the four knobs from the front of the cabinet by slackening the grub screws and remove the four bolts from the bottom of the cabinet.

The chassis will then slide out for inspection without unsoldering leads.



The 230 receiver is marketed by A. J. Balcombe Ltd. The chassis is also employed in the Alba model 450

ALIGNMENT NOTES

I.F. Circuits.—Connect modulated oscillator, tuned to 117.5 kc. across aerial and earth terminals and output meter across speaker terminals, and adjust first and second I.F. trimmers for maximum response.

Medium-wave Band.—(1) Tune modulated oscillator and receiver to 200 metres and adjust aerial, H.F. and oscillator trimmers for maximum reading.

(2) Tune receiver and modulated oscillator to 500 metres and adjust aerial and H.F. trimmers for maximum.

(3) Repeat 1 and 2 for check.

Long-wave Band.—(1) Tune modulated oscillator to 1,000 metres and tune in signal on receiver. If dial reading does not agree, adjust C6.

(2) Adjust C7 for maximum.

(3) Repeat on 2,000 metres.

VALVE READINGS

No signal. Volume and tone controls turned fully clockwise.

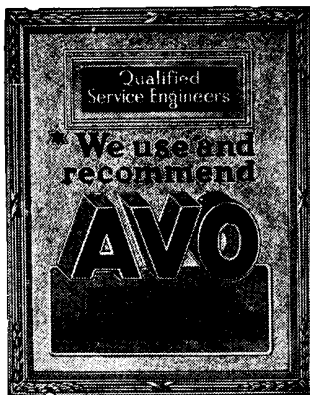
V.	Type.	Electrode.	Volts.	M.a.
1	VP2 (met.) (7) ..	anode ..	134	.8
		aux. grid..	134	.25
		anode ..	134	.75
2	FC2 (met.) (7) ..	anode ..	134	.75
		aux. grid..	62	1.2
		osc. anode	134	1
3	VP2 (met.) (7) ..	anode ..	122	.75
		aux. grid..	134	.2
		double diode.	—	—
4	2D2 (met.) (5) ..	double diode.	—	—
		anode ..	127	4.5
		aux. grid..	134	.75

(All Mullard)

QUICK TESTS

Quick tests are available on the terminal strip located on the speaker. Readings between this and the chassis should be:

- White lead, H.T. .. 134 volts
- Black lead, V5 anode .. 180 volts



The Sign of GOOD SERVICE BRINGS GOODWILL AND TRADE

You can be certain of securing good business if you use "Avo" Testing Instruments. Their precision and dependability provide you with servicing qualifications which the public widely appreciate, and which are clearly recognisable by your display of the gold-embossed "Avo" Service Sign. The public is being taught by persistent press advertising to recognise the "Avo" Service Sign as the Hall Mark of the qualified dealer. It will establish customer-confidence in your reliability. The "Avo" Service Sign will be supplied free on request to responsible dealers and service engineers.

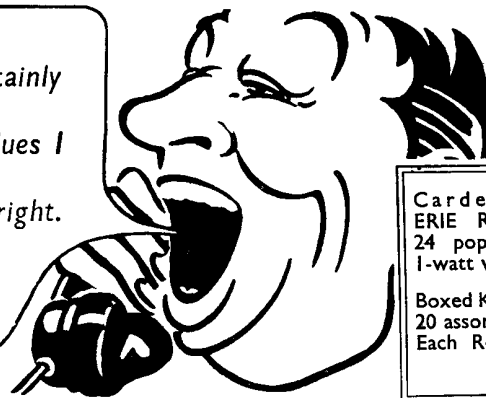
The AUTOMATIC COIL WINDER & ELECTRICAL EQUIPMENT CO., LTD., Winder House, Douglas Street, London, S.W.1.
Phone: Victoria 3404/7.



The 36-range Universal Avometer .. 12 Gns.
The 22-range D.C. Avometer .. 8 Gns.
Deferred Terms if desired.

Service Sam REPORTS:-

That kit of ERIE Resistors is certainly useful. ERIE put in just the values I always seem to want. You're right. You can't beat 'em!



Carded Kits of ERIE RESISTORS:—
24 popular assorted 1-watt values on card.
Boxed Kits, containing 20 assorted values:—
Each Resistor Retail at 1/-

Advt. of the RADIO RESISTOR CO. Ltd., 1, Golden Square, London, W.1

For more information remember www.savoy-hill.co.uk