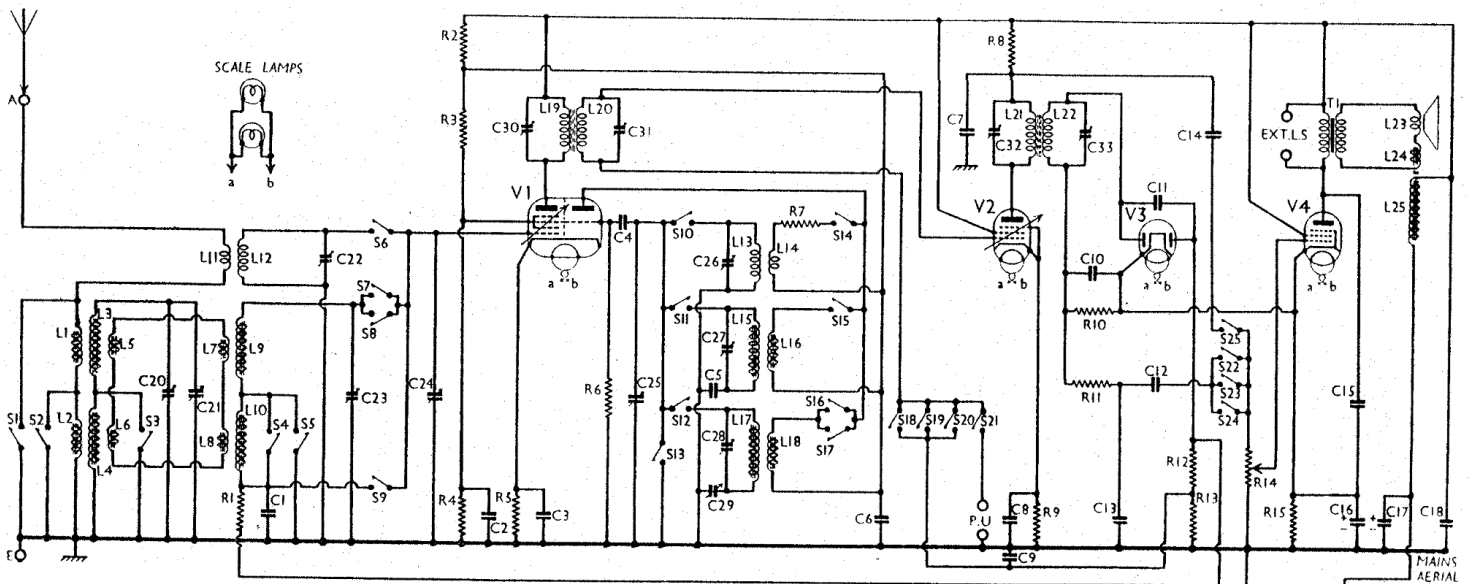


ALBA - 870 & 970



Intermediate frequency 117.5 KC/S.

COMPONENTS AND VALUES

RESISTANCES	Values (ohms)
R1 V1 hexode C.G. decoupling	1,000,000
R2 V1 S.G.'s and osc. anode	13,000
R3 H.T. potential divider	10,000
R4 V1 fixed G.B. resistance	25,000
R5 V1 osc. C.G. resistance	200
R6 V1 osc. anode S.W. stabiliser	25,000
R7 V2 anode decoupling	100
R8 V2 fixed G.B. resistance	5,000
R9 V3 signal diode load	150
R10 I.F. stopper	500,000
R11 V3 A.V.C. diode load	50,000
R12 V3 A.V.C. diode load	500,000
R13 V3 A.V.C. diode load	500,000
R14 Manual volume control	500,000
R15 V4 G.B. resistance	150*

CONDENSERS	Values (μF)
C1 V1 hexode C.G. decoupling	0.1
C2 V1 hexode S.G.'s by-pass	0.1
C3 V1 cathode by-pass	0.001
C4 V1 osc. C.G. condenser	0.0001
C5 V1 osc. M.W. tracker	0.0002
C6 V1 osc. anode decoupling	0.1
C7 V2 anode decoupling	0.001
C8 V2 cathode by-pass	0.1
C9 V2 C.G. decoupling	0.1
C10 I.F. by-pass	0.00025
C11 V3 A.V.C. diode feed	0.00025
C12 Radio A.F. coupling to V4	0.005
C13 I.F. by-pass	0.00025
C14 Gram. A.F. coupling to V4	0.005
C15 Fixed tone corrector	0.005
C16 V4 cathode by-pass	25.0
C17* H.T. smoothing	8.0
C18* H.T. smoothing	12.0
C19 Mains aerial coupling	0.00025
C20† Band-pass pri. tuning	0.00003
C21† Band-pass pri. tuning	0.00003
C22† Aerial S.W. trimmer	0.00003
C23† Band-pass sec. trimming	0.00003
C24† Band-pass sec. and S.W. tuning	0.00003
C25† Osc. tuning	0.00003
C26† Osc. S.W. trimmer	0.00003
C27† Osc. M.W. trimmer	0.00003
C28† Osc. L.W. trimmer	0.00003
C29† Osc. L.W. tracker	0.00007
C30† 1st I.F. trans. pri. tuning	—
C31† 1st I.F. trans. sec. tuning	—
C32† 2nd I.F. trans. pri. tuning	—
C33† 2nd I.F. trans. sec. tuning	—

* Electrolytic. † Variable. ‡ Pre-set.

OTHER COMPONENTS	Approx. Values (ohms)
L1 Aerial M.W. and L.W. coupling coils	70.0
L2 Band-pass primary coils	6.75
L3 Band-pass coupling coils	1.6
L4 Band-pass coupling coils	14.0
L5 Band-pass coupling coils	22.0
L6 Band-pass coupling coils	22.0
L7 Band-pass coupling coils	22.0
L8 Band-pass coupling coils	1.6
L9 Band-pass coupling coils	1.6
L10 Band-pass secondary coils	15.0

Circuit diagram of the Alba 870 (A.C.) 3-band superhet. When using a pick-up the I.F. valve becomes an A.F. amplifier.

OTHER COMPONENTS (Continued)	Approx. Values (ohms)
L11 Aerial S.W. coupling coil	0.1
L12 Aerial S.W. tuning coil	Very low
L13 Osc. S.W. tuning coil	Very low
L14 Osc. S.W. reaction coil	3.5
L15 Osc. M.W. tuning coil	1.6
L16 Osc. M.W. reaction coil	50.0
L17 Osc. L.W. tuning coil	10.0
L18 Osc. L.W. reaction coil	2.5
L19 1st I.F. trans. Primary	50.0
L20 1st I.F. trans. Secondary	50.0
L21 2nd I.F. trans. Primary	50.0
L22 2nd I.F. trans. Secondary	50.0
L23 Speaker speech coil	1.9
L24 Hum neutralising coil	0.1
L25 Speaker field coil	2,000.0
T1 Speaker input trans. Pri.	500.0
T1 Speaker input trans. Sec.	0.3
T2 Mains trans. Pri. total	50.0
T2 Mains trans. Heater sec.	0.05
T2 Mains trans. Rect. heat. sec.	0.1
T2 Mains trans. H.T. sec. total	600.0
S1-17 Waveband and muting switches	—
S18-25 Radio-gram. change switches	—
S26 Mains switch, ganged R14	—

VALVE ANALYSIS

Valve voltages and currents given in the table (col. 2) are those measured in our receiver when it was operating on mains of 230 V, using the 220 V tapping on the mains transformer. The set was tuned to the lowest wavelength on the medium band and the volume control was at maximum, but there was no signal input.

Voltages were measured on the 1,200 V scale of an Avometer, chassis being negative.

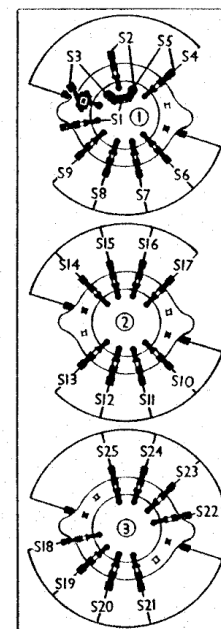
Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 TH4*	260	2.1	55	3.1
V2 VP4B	175	15.0	260	5.4
V3 2D4A	240	38.0	260	4.8
V4 PenA4	385†	—	—	—
V5 IW4/350	—	—	—	—

* Oscillator anode, 110 V, 5.0 mA.
† Each anode, A.C.

GENERAL NOTES

Switches.—S1-S25 are the waveband and gramophone switches, in three ganged rotary units beneath the chassis. The three units are indicated in the under-chassis illustration, the arrows indicating the directions in which they are viewed in the diagrams on the right. The table (col. 3) gives the switch positions for

Switch	S.W.	M.W.	L.W.	Gram.
S1	C	O	O	O
S2	O	C	O	C
S3	O	C	O	O
S4	O	C	O	O
S5	O	O	C	O
S6	C	O	O	O
S7	O	C	O	O
S8	O	O	C	O
S9	O	O	O	C
S10	C	O	O	O
S11	O	C	O	O
S12	O	O	C	O
S13	O	O	O	C
S14	C	O	O	O
S15	O	C	O	O
S16	O	O	C	O
S17	O	O	O	C
S18	C	O	O	O
S19	O	C	O	O
S20	O	O	C	O
S21	O	O	O	C
S22	C	O	O	O
S23	O	C	O	O
S24	O	O	C	O
S25	O	O	O	C



the four control settings, starting from the fully anti-clockwise position, O indicating open, and C closed.

S26 is the Q.M.B. mains switch, ganged with the volume control R14.

Continued overleaf

Switch diagrams, looking at the under-side of the chassis in the directions of the arrows in the illustration below.