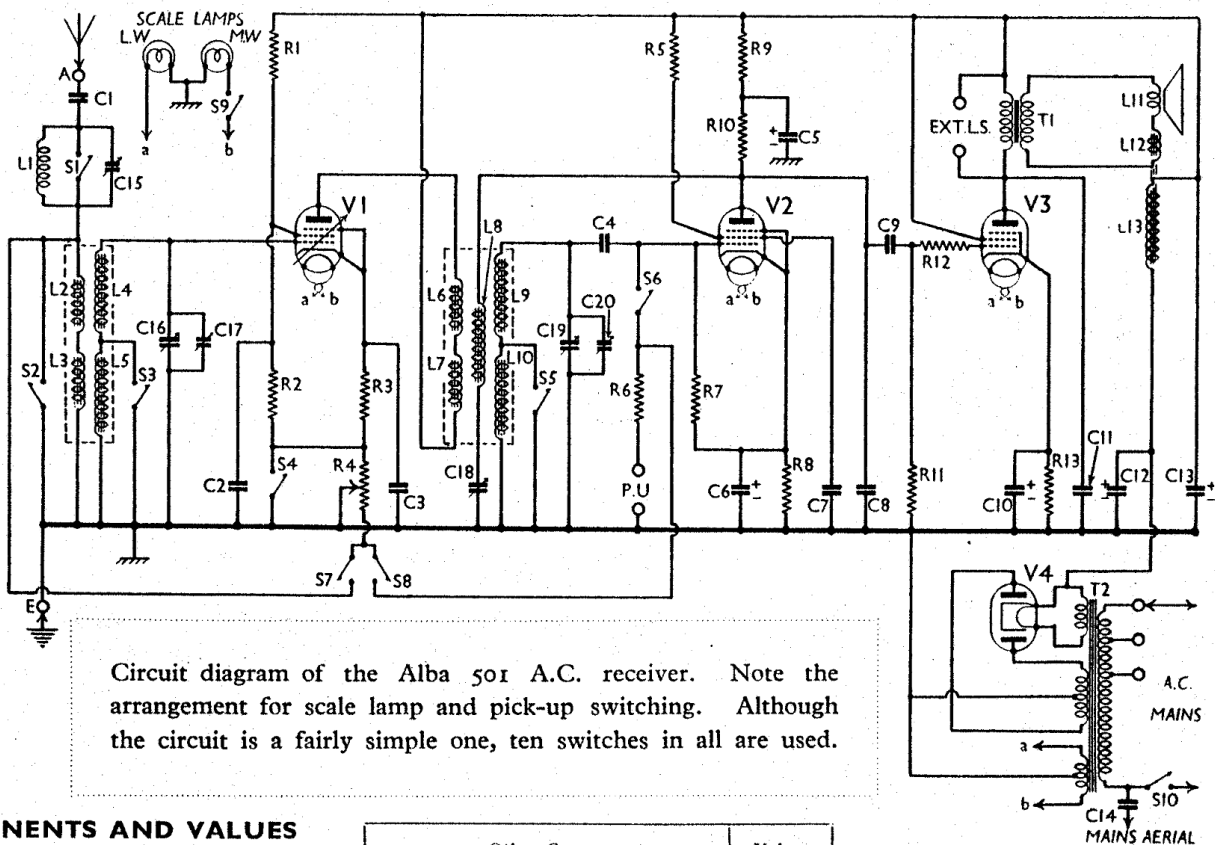


ALBA - 501 & 701



Circuit diagram of the Alba 501 A.C. receiver. Note the arrangement for scale lamp and pick-up switching. Although the circuit is a fairly simple one, ten switches in all are used.

COMPONENTS AND VALUES

Condensers		Values (μ F)
C1	Aerial series condenser	0.00012†
C2	V1 S.G. by-pass	0.1
C3	V1 cathode by-pass	0.1
C4	V2 grid condenser	0.0001
C5*	V2 anode decoupling	2.0
C6*	V2 cathode by-pass	25.0
C7	V2 S.G. by-pass	0.1
C8	V2 anode H.F. by-pass	0.00025 §
C9	L.F. coupling to V3	0.005
C10*	V3 cathode by-pass	25.0
C11	Fixed tone compensator	0.01
C12*	H.T. smoothing	6.0
C13*		6.0
C14		0.0002
C15†	Mains aerial condenser	0.0002
C16†	Droitwich wavetrap tuning	—
C17†	Aerial circuit tuning	—
C18†	Aerial circuit trimmer	—
C19	Reaction control	0.0001
C20†	H.F. transformer tuning	—

* Electrolytic. † Pre-set. ‡ May be 0.0001 μ F.
§ May be 0.0002 μ F.

Other Components		Values (ohms)
L1	Droitwich wave-trap coil	2.0
L2	Aerial coupling coils	0.4
L3		1.75
L4		1.5
L5	Aerial tuning coils	10.0
L6		0.4
L7	H.F. transformer primary	1.75
L8	Reaction coil	3.5
L9	H.F. transformer secondary	1.5
L10		10.0
L11	Speaker speech coil	2.0
L12	Hum neutralising coil	0.1
L13	Speaker field winding	2000.0
T1	Speaker input trans.	{ Pri. 350.0 Sec. 0.25
T2	Mains. trans.	{ Pri. total 49.0 Heater sec. 0.05 Rect. heat. sec. 0.1 H.T. sec. 400.0
S1	Droitwich filter switch	—
S2	Radio muting switch (gram.)	—
S3, S5	Waveband switches	—
S4, S6	Radio-gramophone change-over switches	—
S7, S8		—
S9	M.W. scale lamp switch	—
S10	Mains switch, ganged R4	—

Resistances		Values (ohms)
R1	V1 S.G. H.T. potential divider	40,000
R2		50,000
R3	V1 fixed G.B. resistance	250
R4	V1 gain control	10,000
R5	V2 S.G. H.T. feed	1,000,000
R6	Gram. pick-up series resistance	75,000*
R7	V2 grid leak	1,000,000
R8	V2 G.B. resistance (gram.)	1,000
R9	V2 anode decoupling	75,000
R10	V2 anode load	250,000
R11	V3 grid resistance	500,000
R12	V3 grid H.F. stopper	100,000
R13	V3 G.B. resistance	150

* May be 150,000 Ω .

the filter, is indicated by a white dot. Above, O indicates open, and C closed. S10 is the Q.M.B. mains switch.

Coils.—These, with the exception of L1, are in two screened units on the chassis deck. L1 is beneath the chassis.

VALVE ANALYSIS

Valve voltages and currents given in the table below were measured with the receiver operating on 225 V mains, with the transformer working on the 220 V tap, in accordance with the manufacturer's instructions. There was no signal input and the volume control was at maximum, with the reaction control at minimum. Voltages were measured on the 1,200 V scale of an Avometer, with chassis as negative.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 VP4A	260	4.3	95	1.8
V2 SP4	40	0.5	25	0.2
V3 Pen4VB	240	38.0	260	3.8
V4 1W3	310†	—	—	—

† Each anode, A.C.

GENERAL NOTES

Switches.—There are in all nine wave-change, gramophone, Droitwich filter and scale-lamp switches, and they are all ganged in a single unit, seen in the under-chassis view. Note that certain of the tags are not used, one (next to

Switch	M.W.	L.W.	Droitwich	Gram.
S1	C	C	O	O
S2	O	O	O	C
S3	C	O	O	C
S4	O	O	O	C
S5	C	O	O	O
S6	O	O	O	C
S7	C	O	C	O
S8	O	O	O	C
S9	C	O	O	C

S6) is earthed, and in some cases one contact is common to two switches.

The table above gives the switch positions for the various settings of the knob. The "Droitwich" setting, bringing in