

# ALBA - 3613

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Aerial coupling coils ...	0.2	A1
L2		1.0	A1
L3		57.0	A1
L4		0.1	A1
L5	Aerial tuning coils ...	3.7	A1
L6		15.0	A1
L7		0.3	E5
L8	Fil. choke ...	0.2	F3
L9	Osc. S.W. coil ...	2.0	F4
L10	L.W. tuning coils ...	4.5	F4
L11	Osc. M.W. and ...	1.7	F4
L12	L.W. react. coils ...	2.0	F4
L13	1st I.F. trans. ...	Pri. 8.6	A2
L14		Sec. 8.6	A2
L15	2nd I.F. trans. ...	Pri. 8.6	B2
L16		Sec. 8.6	B2
L17	Speech coil ...	2.2	—
T1	Output trans. ...	380.0	—
S1-S11	Waveband switches ...	0.7	F3
S12	L.T. switch ...	—	C3
S13	H.T. switch ...	—	C3

Valve		Anode		Screen	
		V	mA	V	mA
V1	DK91	79	0.13	39	1.75
V2	DF91	79	2.5	45	1.01
V3	DAF91	3	†	†	†
V4	DL92	75	6.8	79	1.8

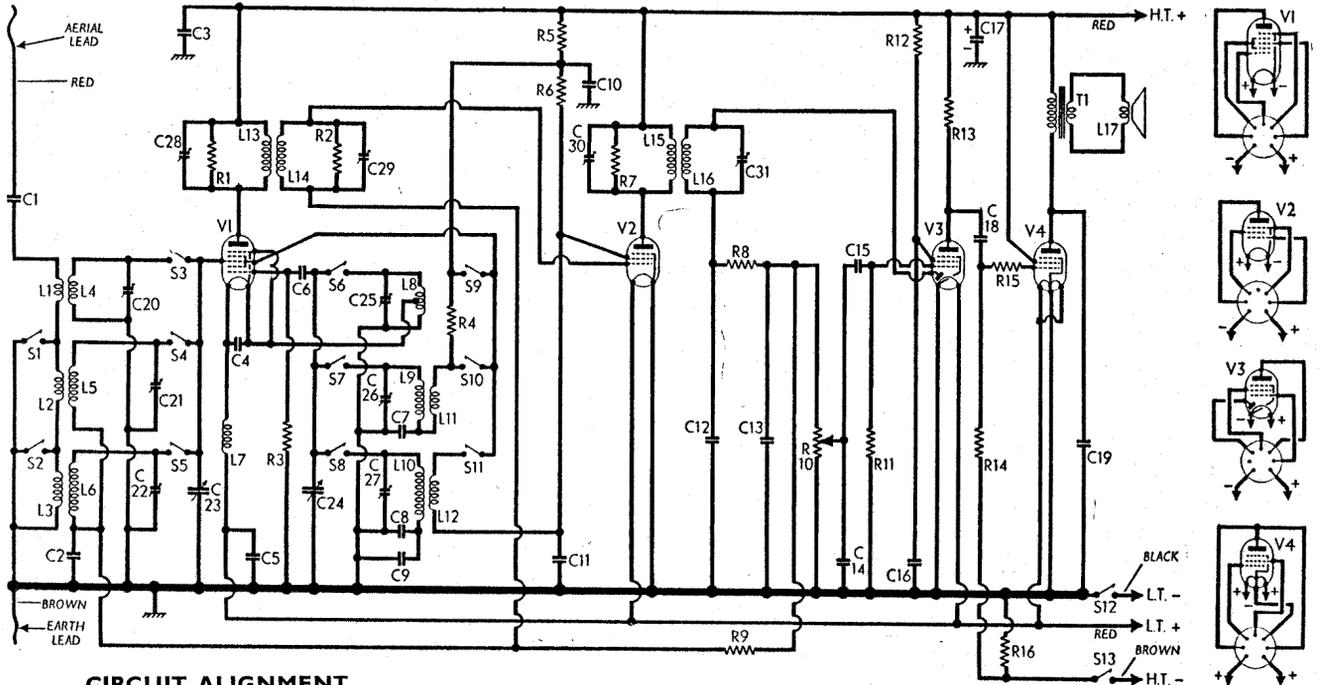
† Negligible readings.

RESISTORS		Values (ohms)	Locations
R1	I.F. shunt ...	560,000	A2
R2	I.F. shunt ...	560,000	A2
R3	V1 Osc. C.G. ...	100,000	E4
R4	Osc. anode load ...	10,000	F4
R5	H.T. decoupling ...	5,000	F4
R6	V2 S.G.H.T. feed ...	10,000	F4
R7	I.F. shunt ...	330,000	B2
R8	I.F. stopper ...	150,000	B2
R9	A.G.C. decoupling ...	2,200,000	D5
R10	Volume control ...	2,000,000	C3
R11	V3 pent. C.G. ...	10,000,000	C4
R12	V3 S.G.H.T. feed ...	4,700,000	D4
R13	V3 pent. load ...	1,000,000	C5
R14	V4 C.G. resistor ...	2,200,000	C4
R15	V4 C.G. stopper ...	10,000	C4
R16	V4 G.B. resistor ...	680	C3

CAPACITORS		Values (μF)	Locations	
C1	Aerial series ...	0.0001	F4	
C2	A.G.C. decoupling ...	0.05	E4	
C3	H.T. R.F. by-pass ...	0.1	D3	
C4	L.T. R.F. by-pass ...	0.005	E5	
C5	L.T. R.F. by-pass ...	0.1	E5	
C6	V1 osc. C.G. ...	0.0001	E4	
C7	Osc. M.W. tracker ...	0.000455	F4	
C8	Osc. L.W. tracker ...	0.000175	F5	
C9	Osc. L.W. tracker ...	**	F5	
C10	H.T. decoupling ...	0.1	F4	
C11	S.G. decoupling ...	0.05	E4	
C12	I.F. by-pass capacitors ...	0.0001	B2	
C13		0.0001	B2	
C14		0.0001	C4	
C15		0.005	C4	
C16	V3 S.G. decoupling ...	0.1	C4	
C17*	H.T. reservoir ...	8.0	D4	
C18	A.F. coupling ...	0.001	C4	
C19	Tone corrector ...	0.001	C5	
C20†	Aerial S.W. trim ...	0.00004	A2	
C21†	Aerial M.W. trim ...	0.00004	A2	
C22†	Aerial L.W. trim ...	0.00008	A2	
C23†	Aerial tuning ...	\$0.000438	A2	
C24†	Oscillator tuning ...	\$0.000438	A1	
C25†	Osc. S.W. trim ...	0.00004	F5	
C26†	Osc. M.W. trim ...	0.00004	F5	
C27†	Osc. L.W. trim ...	0.00008	F5	
C28†	1st I.F. transformer ...	0.00018	A2	
C29†		tuning ...	0.00018	A2
C30†		2nd I.F. transformer ...	0.00018	B2
C31†	mer tuning ...	0.00018	B2	

\* Electrolytic. † Variable. ‡ Pre-set. § "Swing" value, min. to max. \*\* Lengths of wire.

## Intermediate frequency 470 kc/s.



## CIRCUIT ALIGNMENT

Except for the cursor adjustment, all the following operations may be carried out with the chassis in position in the cabinet. With the gang at maximum capacitance the cursor should be vertical and coincident with the 590 m calibration mark on the glass scale. It may be adjusted in position by rotating the drum drive on its spindle, by slackening the two boss screws.

**I.F. Stages.**—Switch set to M.W., turn gang to minimum and volume control to maximum, connect signal generator via an 0.1 μF capacitor in the "live" lead to control grid (pin 6) of V1 and chassis. A convenient point for connection of the

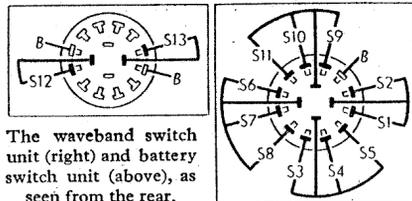
"live" lead is the fixed vanes tag of C23 (rear section of gang). Feed in a 470 kc/s (638.3 m) signal, and adjust C31, C30, C29 and C28 (location references B2, A2) for maximum output. Repeat these operations until no improvement results.

**R.F. and Oscillator Stages.**—Transfer "live" signal generator lead to A (red) lead via a suitable dummy aerial.

**S.W.**—Switch set to S.W., tune to 16.7 m on scale, feed in a 16.7 (18 Mc/s) signal, and adjust C25 (F5) and C20 (A2) for maximum output. Repeat these operations until no improvement results.

**M.W.**—Switch set to M.W., tune to 200 m on scale, feed in a 200 m (1,500 kc/s) signal, and adjust C26 (F5) and C21 (A2) for maximum output. Repeat these operations until no improvement results.

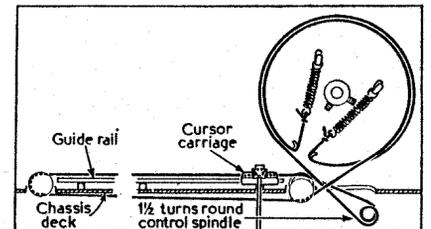
**L.W.**—Switch set to L.W., tune to 800 m on scale, feed in an 800 m (375 kc/s) signal, and adjust C27 (F5) and C22 (A2) for maximum output. Repeat these operations until no improvement results.



The waveband switch unit (right) and battery switch unit (left), as seen from the rear.

**Drive Cord Replacement.**—About 3ft 6in of high-grade plaited and waxed fishing line is required for the drive cord, whose course is shown in the sketch below, where it is viewed from the front with the gang at maximum.

Starting with the gang at maximum, tie one tension spring to one end of the cord and hook it on to the left-hand anchor tag, then follow our sketch, taking care to arrange the triple cross-over sequence in the same order as we show it. Tie the second tension spring to the free end of the cord so as to open both springs to about 1½ times their normal length when hooked up, but before hooking the second one, loop the cord as it passes through the cursor carriage over the anchor provided for it.



Sketch of the tuning drive system, as seen from the front with the gang at maximum.

Switch	S.W.	M.W.	L.W.
S1	C	—	—
S2	—	C	—
S3	—	—	—
S4	—	C	—
S5	—	—	C
S6	C	—	—
S7	—	C	—
S8	—	—	C
S9	C	—	—
S10	—	C	—
S11	—	—	C