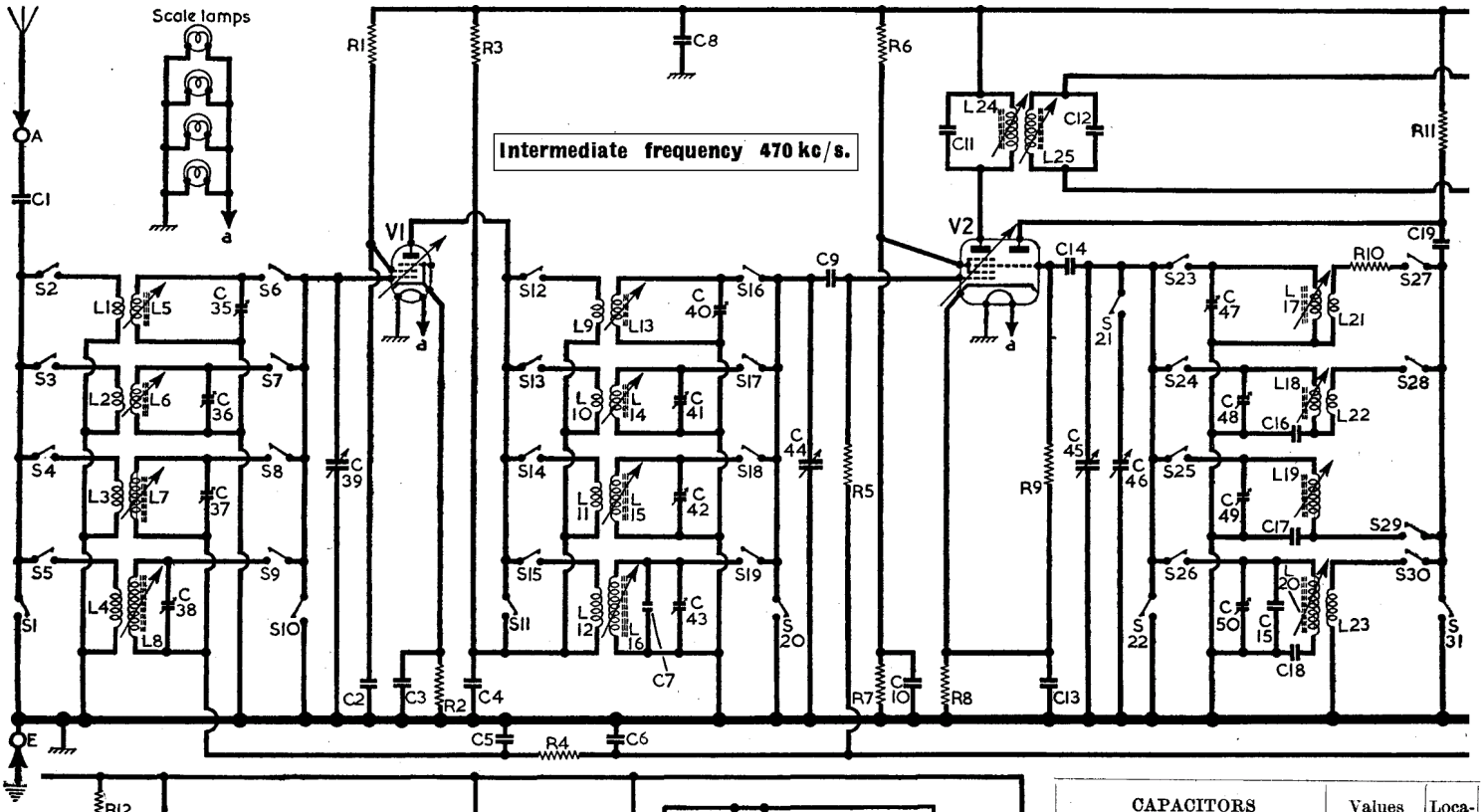


CAPACITORS		Values	Locations
C1	Aerial coupling ...	200pF	G4
C2	V1 S.G. decoupling	0·1μF	F5
C3	V1 cath. by-pass...	0·01μF	F5
C4	V1 anode decoup...	0·1μF	G5
C5, C6	A.G.C. decoupling	0·05μF	E5
		0·05μF	E5
C7	L.W. R.F. trimmer	70pF	G5
C8	H.T. decoupling ...	0·25μF	F6
C9	V2 C.G.	100pF	F5
C10	V2 S.G. decoupling	0·1μF	F6
C11, C12	1st I.F. trans. tuning	100pF	B3
		100pF	B3
C13	V2 cath. by-pass...	0·1μF	G6
C14	V2 osc. C.G. ...	100pF	G6
C15	L.W. osc. trimmer	140pF	G6
C16	S.W.2 osc. tracker	2,750pF	G6
C17	M.W. osc. tracker...	600pF	F6
C18	L.W. osc. tracker...	270pF	G6
C19	Osc. anode coup....	100pF	G6
C20	V3 S.G. decoupling	0·1μF	F6
C21	V3 cath. by-pass ...	0·1μF	F6
C22, C23	2nd I.F. trans. tuning	100pF	C3
		100pF	C3
C24, C25	I.F. by-passes ...	100pF	C3
		100pF	C3
C26*	V4 cath. by-pass ...	25μF	D6
C27	A.F. coupling ...	0·005μF	E6
C28	A.G.C. coupling ...	12pF	E6
C29	A.F. coupling ...	0·005μF	D6
C30, C31	Parts tone control	0·05μF	—
		0·005μF	—
C32*, C33*, C34*	H.T. smoothing ...	16μF	C1
		32μF	C1
		32μF	C1
C35‡	S.W.1 aerial trim	25pF	A1
C36‡	S.W.2 aerial trim...	25pF	A1
C37‡	M.W. aerial trim...	60pF	A1
C38‡	L.W. aerial trim ...	60pF	A1
C39†	Aerial tuning ...	528pF§	A2
C40‡	S.W.1 R.F. trim ...	30pF	A2
C41‡	S.W.2 R.F. trim....	30pF	A2
C42‡	M.W. R.F. trim ...	30pF	A2
C43‡	L.W. R.F. trim. ...	30pF	A2
C44†	R.F. tuning ...	528pF§	A2
C45†	Oscillator tuning ...	528pF§	A2
C46†	Band-spread tuning	30pF	F4
C47‡	S.W.1 osc. trim. ...	30pF	A3
C48‡	S.W.2 osc. trim....	30pF	A3
C49‡	M.W. osc. trim. ...	30pF	A3
C50‡	L.W. osc. trim. ...	30pF	A3

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

RESISTORS		Values	Locations
R1	V1 S.G. H.T. feed	90kΩ	F5
R2	V1 G.B.	300Ω	F5
R3	V1 anode decoup....	10kΩ	F5
R4	A.G.C. decoup. ...	1MΩ	F5
R5	V2 C.G.	1MΩ	F6
R6, R7	V2 S.G. H.T. pot. divider	22kΩ	F6
		33kΩ	F6
R8	V2 G.B.	220Ω	F6
R9	V2 osc. C.G. ...	47kΩ	G6
R10	Osc. stabilizer ...	25Ω	G6
R11	V2 osc. anode feed	27kΩ	F6
R12	V3 S.G. feed ...	90kΩ	F6
R13	V3 G.B.	300Ω	F6
R14	I.F. stopper ...	47kΩ	C3
R15	Signal diode load	470kΩ	C3
R16	Volume control ...	250kΩ	—
R17	V4 anode load ...	47kΩ	D6
R18	V4 G.B.	2·2kΩ	D6
R19	A.G.C. diode load	1MΩ	E6
R20	A.G.C. decoupling	1MΩ	E6
R21	V5 C.G.	820kΩ	D5
R22	Part tone control ...	10kΩ	—
R23	V5 G.B.	200Ω	D5
R24	H.T. smoothing ...	2·2kΩ	E5

OTHER COMPONENTS		Approx. Values (Ohms)	Locations
L1	Aerial coupling coils	—	G4
L2		0·5	G4
L3		1·5	G4
L4		45·0	G4
L5	Aerial tuning coils	—	G4
L6		3·0	G4
L7		23·0	G4
L8		—	G5
L9	R.F. coupling coils	—	G5
L10		0·5	G5
L11		43·0	G5
L12		—	G5
L13	R.F. tuning coils ...	3·0	G5
L14		23·0	G5
L15		—	G6
L16		—	G6
L17	Oscillator tuning coils	—	G6
L18		2·0	G6
L19		7·0	G6
L20	Oscillator reaction coils	—	G6
L21		—	G6
L22		3·5	G6
L23	1st I.F. trans. (Pri. 6·0, Sec. 8·5)	6·0	B3
L24		8·5	B3
L25	2nd I.F. trans. (Pri. 6·0, Sec. 8·5)	6·0	C3
L26		8·5	C3
L27	Speech coil	2·5	—
L28	Smoothing choke...	68·0	E4
L29	O.P. trans. a ... b ...	480·0	—
T1		—	—
T2	Mains trans. a ... b ... c ... d, total	—	—
		180·0	B2
		170·0	
		30·0	
S1-S33	Waveband switches	—	G4
S34, S35	Tone switches ...	—	—
S36, S37	Mains sw., gd' R16	—	—

Valve	Anode		Screen		Cath.
	V	mA	V	mA	V
V1 EF41	195	4·5	70	1·5	1·7
V2 ECH42	200	2·0	70	2·4	1.7
	Oscillator				
	95	3·0			
V3 EF41	200	5·0	70	1·5	2·0
V4 EBC41	125	0·8	—	—	1·7
V5 EL41	270	27·0	200	5·5	6·5
V6 EZ40	270*	—	—	—	290·0†

* A.C. reading, each anode. † Cathode current 54 mA.

ALBA - 3011

CIRCUIT ALIGNMENT

Remove chassis from cabinet and position it on the bench with the R.F. and oscillator core adjustments facing upwards.

I.F. Stages.—Switch receiver to M.W. and turn gang to maximum capacitance. Connect output of signal generator, via an 0.1 μF capacitor in "live" lead, to control grid (pin 6) of **V2** and chassis. Feed in a 470 kc/s (638.3 m) signal and adjust the cores of **L27** (location reference C3), **L26** (C3), **L25** (B3) and **L24** (B3) for maximum output. Repeat these adjustments until no further improvement results.

R.F. and Oscillator Stages.—Check that with gang at maximum capacitance the cursor coincides with the highest wavelength ends of the tuning scales. Transfer signal generator leads, via a dummy aerial, to **A** and **E** sockets.

S.W.1.—Switch receiver to S.W.1 and turn the band-spread tuning capacitor **C46** to minimum capacitance. Tune receiver to 30 m, feed in a 30 m (10 Mc/s) signal and adjust the cores of **L17** (G6), **L13** (G5) and **L5** (G4) for maximum output. Tune receiver to 11.1 m, feed in a 11.1 m (27 Mc/s) signal and adjust **C47** (A3), **C40** (A2) and **C35** (A1) for maximum output. Repeat these adjustments until no further improvement results.

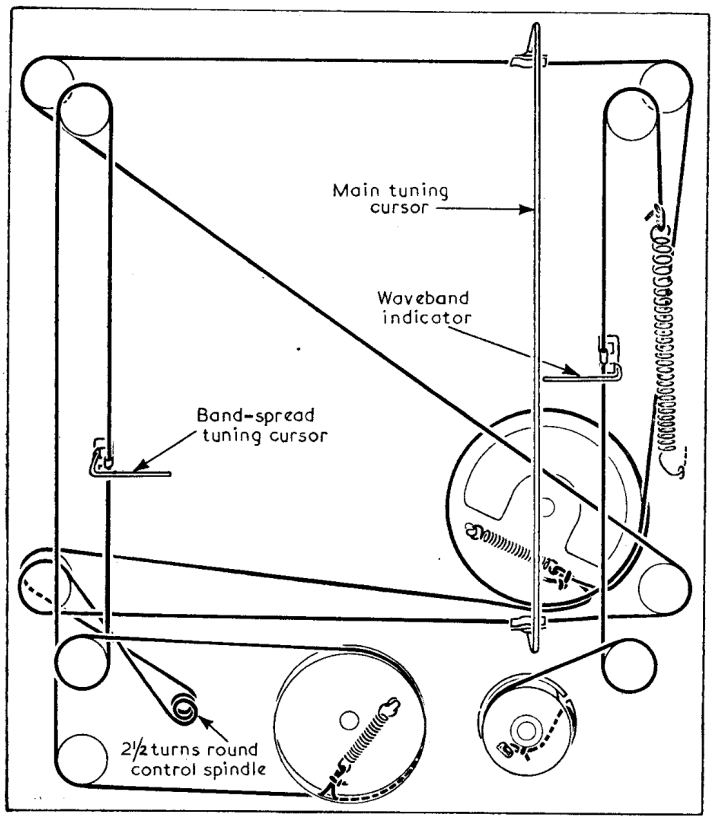
S.W.2.—Switch receiver to S.W.2, tune receiver to 100 m, feed in a 100 m (3 Mc/s) signal and adjust the cores of **L18** (G6), **L14** (G5) and **L6** (G4) for maximum output. Tune receiver to 33.34 m, feed in a 33.34 m (9 Mc/s) signal and adjust **C48** (A3), **C41** (A2) and **C36** (A1) for maximum output. Repeat these adjustments until no further improvement results.

M.W.—Switch receiver to M.W., tune to 500 m, feed in a 500 m (600 kc/s) signal and adjust the cores of **L19** (G6), **L15** (G5) and **L7** (G4) for maximum output. Tune receiver to 200 m, feed in a 200 m (1,500 kc/s) signal and adjust **C49** (A3), **C42** (A2) and **C37** (A1) for maximum output. Repeat these adjustments until no further improvement results.

L.W.—Switch receiver to L.W., tune to 1,949 m, feed in a 1,949 m (154 kc/s) signal and adjust the cores of **L20** (G6), **L16** (G5) and **L8** (G4) for maximum output. Tune receiver to 1,000 m, feed in a 1,000 m (300 kc/s) signal and adjust **C50** (A3), **C43** (A2) and **C38** (A1) for maximum output. Repeat these adjustments until no further improvement results.

Drive Cord Replacements.—The following instructions cover the replacement of the main tuning drive, the band-spread cursor drive and the waveband indicator drive. In order to make the various pulleys easily accessible, the tuning scale and the scale backing cover should be removed (total of eight self-tapping screws).

Main Tuning Drive.—About 6 ft. of nylon-braided glass yarn is required for a new drive cord, which should be run as shown in our sketch of the drive cord systems (adjoining), starting with the gang at maximum capacitance and running the cord off clockwise round the drum.



Sketch showing the main tuning drive, the band-spread tuning drive and the waveband indicator drive systems as viewed from the front of the chassis with the tuning scale and the scale backing cover removed. In this sketch, the assembly is drawn as seen when the chassis is standing on its base; when the chassis is in the cabinet it stands on its side, and the band-spread cursor is then at the bottom.

Waveband Switch Diagram

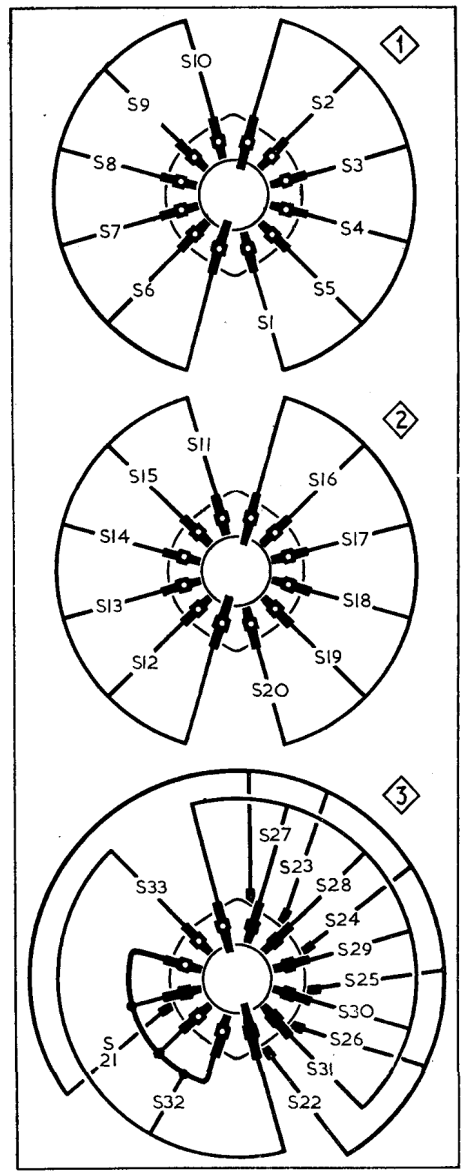


Diagram of the waveband switch units, drawn as seen from the rear of an inverted chassis. The associated switch table appears in column 3.

Band-spread Tuning Drive.—About 3 ft of nylon-braided glass yarn is required for a new drive cord, which should be run as indicated in the drive cord sketch. The band-spread control should be set to maximum capacitance, and the cord run off clockwise from the drive drum, pulling against the end-stop.

Waveband Indicator Drive.—About 18 inches of nylon-braided glass yarn is required for a new drive cord, which should be fitted as follows. First remove the indicator drive drum from its spindle, and tie one end of the cord to the lug on its rear face. Replace the drum on its