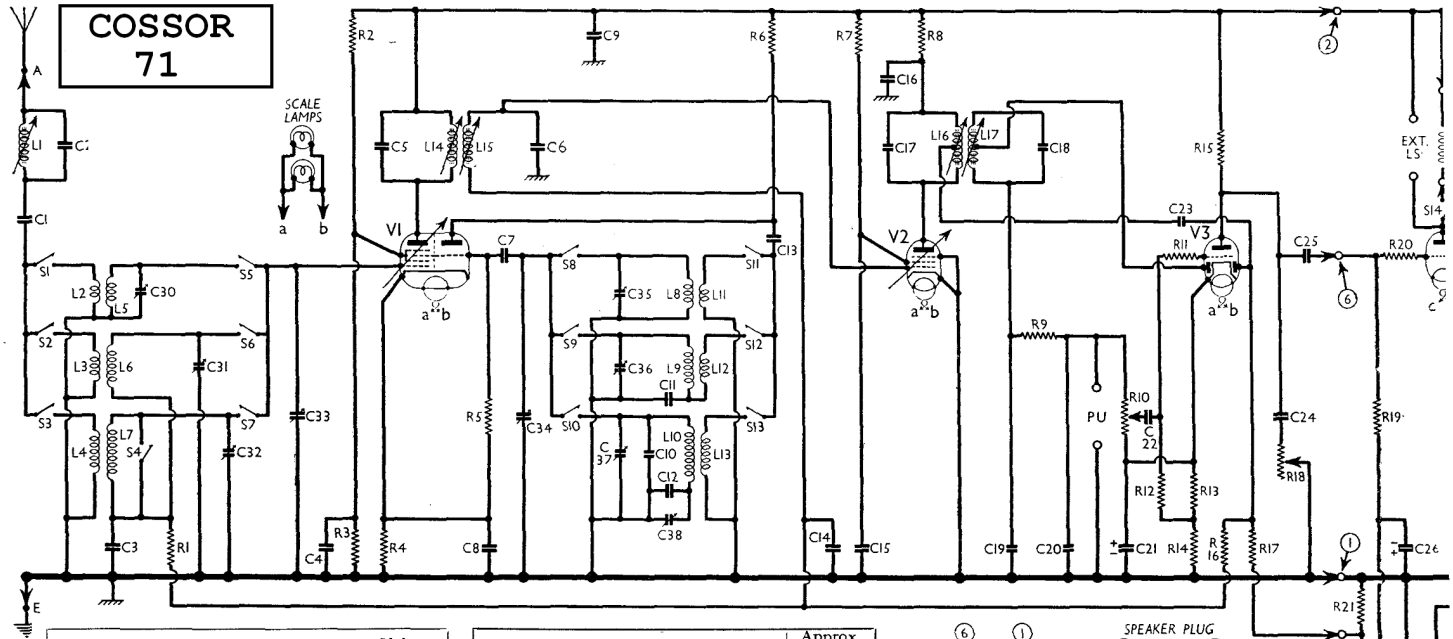
COSSOR 71



RESISTANCES		Values (ohms)
R1	V1 hexode CG decoupling	500,000
R2	V1 SG HT feed potential divider resistances	20,000
R3		30,000
R4	Part V1 fixed GB resistance	130
R5	V1 osc. CG resistance	40,000
R6	V1 osc. anode HT feed	30,000
R7	V2 SG HT feed	100,000
R8	V2 anode HT feed	5,000
R9	IF stopper	50,000
R10	Manual volume control; V3 signal diode load	500,000
R11	V3 *triode grid stopper*	*100,000*
R12	V3 triode CG resistance	2,000,000
R13	V3 triode GB; AVC delay resistances	750
R14		1,000
R15	V3 triode anode load	50,000
R16	AVC line decoupling	3,000,000
R17	V3 AVC diode load	1,000,000
R18	Variable tone control	250,000
R19	V4 CG resistance	500,000
R20	V4 grid stopper	100,000
R21	V1, V2 fixed GB and V4 GB potential divider resistances	7,000
R22		90,000
R23		150,000
R24	V1-V3 heater circuit pot., total	25*
R25	V4 heater circuit pot., total	25*

* Centre-tapped.

CONDENSERS		Values (μF)
C1	Aerial series condenser	0·0005
C2	Aerial IF rejector tuning	0·000225
C3	V1 hexode CG decoupling	0·5
C4	V1 SG decoupling	0·05
C5	1st IF transformer fixed tuning condensers	0·000225
C6		0·000225
C7	V1 osc. CG condenser	0·0001
C8	V1 cathode by-pass	0·1
C9	HT circuit RF by-pass	0·1
C10	Osc. circuit LW fixed trimmer	0·00005
C11	Osc. circuit MW tracker	0·000638
C12	Osc. circuit LW fixed tracker	0·00014
C13	V1 osc. anode coupling	0·0005
C14	V2 CG decoupling	0·05
C15	V2 SG decoupling	0·05
C16	V2 anode decoupling	0·1
C17	2nd IF transformer fixed tuning condensers	0·00006
C18		0·000075
C19	IF by-pass condensers	0·00005
C20		0·00005
C21*	V3 cathode by-pass	50·0
C22	AF coupling to V3 triode	0·005
C23	Coupling to V3 AVC diode	0·00005
C24	Part of variable tone control	0·01
C25	V3 triode to V4 AF coupling	0·01
C26*	V4 CG decoupling	10·0
C27	Speaker field shunt	0·05
C28*	HT smoothing condensers	8·0
C29*		8·0
C30‡	Aerial circuit SW trimmer	—
C31‡	Aerial circuit MW trimmer	—
C32‡	Aerial circuit LW trimmer	—
C33‡	Aerial circuit tuning	—
C34†	Oscillator circuit tuning	—
C35‡	Osc. circuit SW trimmer	—
C36‡	Osc. circuit MW trimmer	—
C37‡	Osc. circuit LW trimmer	—
C38‡	Osc. circuit LW tracker	—

* Electrolytic. † Variable. ‡ Pre-set.

OTHER COMPONENTS (*Continued*)		Approx. Values (ohms)
L13	Oscillator LW reaction	6·0
L14	1st IF trans. Pri.	4·0
L15	1st IF trans. Sec.	4·0
L16	2nd IF trans. Pri., total	18·0
L17	2nd IF trans. Sec., total	18·0
L18	Speaker speech coil	2·0
L19	Hum neutralising coil	0·15
L20	Speaker field coil	1000·0
T1	Speaker input trans. Pri.	170·0
	Speaker input trans. Sec.	0·15
T2	Mains trans. Pri., total	27·0
	Mains trans. V1-V3 heat. sec.	0·1
	Mains trans. V4 heater sec.	0·1
	Mains trans. Rect. heat. sec.	0·2
	Mains trans. HT sec., total	240·0
S1-S13	Waveband switches	—
S14	Speaker switch	—
S15	Mains switch	—

CIRCUIT ALIGNMENT

IF Stages.—Connect signal generator via a 0·1 μF condenser to control grid (top cap) of **V2** and chassis, feed in a 465 KC/S signal, and adjust the cores of **L16** and **L17,** having first softened the wax by the application of a warm screwdriver. Transfer signal generator to top cap of **V1,** and similarly adjust cores of **L14, L15.** The existing lead to each top cap should be left in position, and the response curve of the IF stages should be symmetrical, with a perceptible flat top when viewed on an oscilloscope.

IF Rejector.—Connect signal generator to **A** and **E** leads, tune to top of MW band, feed in a strong 465 KC/S signal, and adjust core of **L1** for *minimum* output.

RF and Oscillator Stages.—With gang at maximum, pointer should cover the short horizontal lines at the extreme right-hand ends of the scales. Connect signal generator to **A** and **E** leads, via a suitable dummy aerial.

LW.—Switch set to LW, and tune to 1,200 m on scale. Feed in a 1,200 m (250 KC/S) signal, and adjust **C37,** then **C32,** for maximum output. Feed in a 1,875 m (160 KC/S) signal, tune it in, and adjust **C38** for maximum output, while rocking the gang for optimum results. Repeat the LW adjustments.

MW.—Switch set to MW, and tune to 214 m on scale. Feed in a 214 m (1,400 KC/S) signal, and adjust **C36,** then **C31,** for maximum output. Tracking is fixed.

SW.—Switch set to SW, tune to 18 MC/S on scale, and feed in an 18 MC/S (16·67 m) signal. Adjust **C35,** then **C30** for maximum output. **C35** must be adjusted to the peak involving the smaller trimmer capacity.

Switch	SW	MW	LW
S1	C	—	—
S2	—	C	—
S3	—	—	C
S4	—	C	—
S5	C	—	—
S6	—	C	—
S7	—	—	C
S8	C	—	—
S9	—	C	—
S10	—	—	C
S11	C	—	—
S12	—	C	—
S13	—	—	C

Diagrams of the switch units, as seen looking from the front of the underside of the chassis.