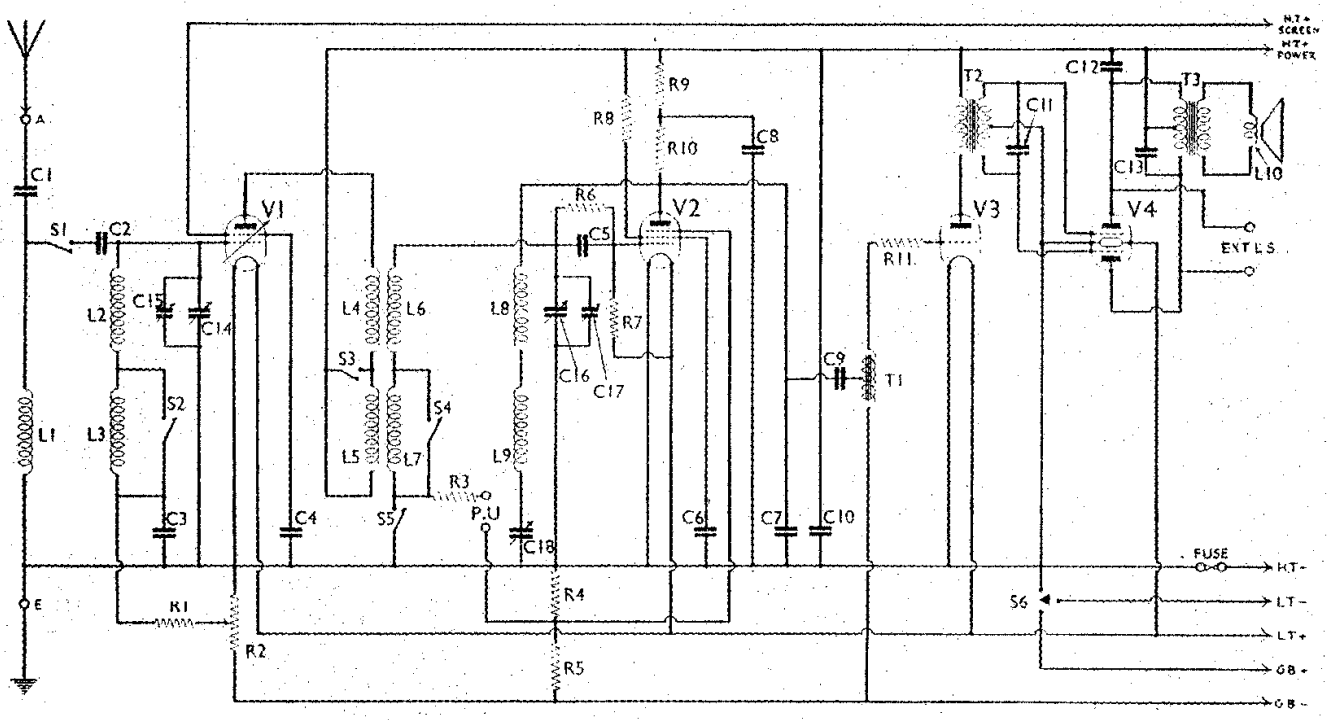
COSSOR - 435 B



Circuit diagram of the Cossor Model 435B battery receiver.

COMPONENTS AND VALUES

	Resistances	Values (ohms)
R1	V1 cont. grid decoupling	2,000,000
R2	Volume control	50,000
R3	Pick-up series resistance	100,000
R4	V2 G.B. pot. divider	50,000
R5	V2 G.B. pot. divider	100,000
R6	V2 grid resistances	3,000,000
R7	V2 grid resistances	2,000,000
R8	V2 S.G. H.T. feed	500,000
R9	V2 anode decoupling	50,000
R10	V2 anode resistance	50,000
R11	V3 grid H.F. stopper	100,000

	Condensers	Values (μF)
C1	Aerial series condenser	0·0005
C2	M.W. coupling	0·000015
C3	V1 cont. grid decoupling	0·1
C4	V1 S.G. by-pass	0·1
C5	V2 grid condenser	0·0001
C6	V2 S.G. by-pass	0·1
C7	V2 anode H.F. by-pass	0·0002
C8	V2 anode decoupling	0·1
C9	L.F. coupling to T1	0·1
C10	H.T. reservoir	2·0
C11	T2 sec. shunt	0·0005
C12	Tone compensators	0·1
C13	Tone compensators	0·1
C14	Aerial tuning	0·0005
C15	Aerial trimmer	—
C16	H.F. trans. sec. tuning	0·0005
C17	H.F. trans. sec. trimmer, pre-set	—
C18	Reaction condenser	0·00035

	Other Components	Values (ohms)
L1	Aerial coupling coil	9·3
L2	Aerial tuning coils	1·5
L3	Aerial tuning coils	13·0
L4	H.F. transformer primary	1·0
L5	H.F. transformer primary	9·5
L6	H.F. transformer secondary	1·5
L7	H.F. transformer secondary	13·0
L8	Reaction coils	0·4
L9	Reaction coils	3·3
L10	Speaker speech coil	1·25
T1	Auto-transformer, total winding	4,500
T2	Driver trans. Pri.	500
T2	Driver trans. Sec., total	95
T3	Speaker input trans. Pri., total	500
T3	Speaker input trans. Sec.	0·17
S1-S4	Waveband switches, ganged	—
S5	Gram. pick-up switch	—
S6	Filament switch	—

Switch	M.W.	L.W.	Gram.
S1	Closed	Open	Open
S2	Closed	Open	Open
S3	Closed	Open	Closed
S4	Closed	Open	Open
S5	Closed	Closed	Open
S6*	Closed	Closed	Closed

* Open in the "off" position.

VALVE ANALYSIS

All values given in the table below were obtained from an average receiver with a new 120 V H.T. battery in use, and the correct H.T. and G.B. voltages applied. No aerial or earth was connected and the volume control was at maximum.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 220 VS	120	2·7	60	0·4
V2 210 SPT	45*	0·7	20*	0·2
V3 215 P	119	2·5	—	—
V4 220 B	110†	1·3†	—	—

* Depends largely on meter used. † Each section.