



The circuit diagram of the Cossor 379 A.C./D.C. receiver. A "straight" 3-valve (plus rectifier) circuit is used, with a triode in the output stage.

COMPONENTS AND VALUES

CONDENSERS		Values (μF)
C1	Aerial series condenser	0.0005
C2	Aerial coupling (M.W.)	0.00015
C3	Earth blocking condenser	0.1
C4	V1 S.G. by-pass	0.1
C5	V1 cathode by-pass	0.1
C6	V1 anode decoupling	0.1
C7	V2 C.G. condenser	0.0001
C8	V2 S.G. by-pass	0.1
C9	V2 anode decoupling	0.25
C10	V2 anode H.F. by-pass	0.0001
C11	L.F. coupling to T1	0.1
C12	Tone corrector	0.005
C13*	V3 cathode by-pass	50.0
C14*	H.T. smoothing	8.0
C15*		8.0
C16	Mains H.F. by-pass	0.1
C17†	Aerial circuit tuning	0.0005
C18†	Aerial circuit trimmer	—
C19†	H.F. trans. pri. tuning	0.0005
C20†	H.F. trans. pri. trimmer	—
C21†	Reaction control	0.0005

* Electrolytic. † Variable. ‡ Pre-set.

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial coupling coil	9.0
L2	Aerial tuning coils	1.5
L3		14.0
L4	H.F. transformer primary	1.5
L5		13.5
L6	Reaction coils	0.6
L7		3.5
L8	H.F. transformer secondary	1.2
L9		13.0
L10	Speaker speech coil	2.0
L11	Hum neutralising coil	0.1
L12	Speaker field coil	400.0
L13	Mains filter chokes	10.0
L14		10.0
T1	Intervalve auto-trans., total winding	2,500.0
T2	Speaker input trans. { Pri. Sec. }	300.0 0.25
S1-S5	Waveband switches	—
S6	Mains switch	—

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 13VPA	125	3.0	40	0.7
V2 13SPA..	20	0.9	30	0.3
V3 402P ..	150	18.0	—	—
V4 40SUA†	—	—	—	—

† Cathode to chassis, 190 V, D.C.

RESISTANCES		Values (ohms)
R1	V1 S.G. H.T. potential divider	50,000
R2		25,000
R3	V1 fixed G.B. resistance	350
R4	V1 gain control	12,000
R5	V1 anode decoupling	10,000
R6	Reaction circuit stabiliser	300
R7	V2 C.G. circuit stabiliser	200
R8	V2 grid leak	1,000,000
R9	V2 S.G. H.T. feed	500,000
R10	V2 anode decoupling	50,000
R11	V2 anode load	100,000
R12	V3 C.G. H.F. stopper	250,000
R13	V3 G.B. resistance	600
R14	H.T. supply bleeder	3,000
R15	Scale lamps shunt	100
R16	Heater circuit ballast, total	620

VALVE ANALYSIS

Valve voltages and currents given in the table (Col. 2) are those measured in our receiver when it was operating on A.C. mains of 230 V, using the 220 V tapping on the mains resistance. The volume control was at maximum but the reaction control was at minimum, and there was no signal input.

Voltages were measured on the 1,200 V scale of an Avometer, with chassis as negative.

GENERAL NOTES

Switches.—S1-S5 are the waveband switches and S6 the mains circuit switch. They are all ganged together in a single unit beneath the chassis. In the "off" position of the control knob all contacts are open; on M.W. all contacts are closed; on L.W., S6 only is closed. The rotor of the switch unit can easily be removed, enabling the contacts to be properly cleaned.

Coils.—The aerial coils L1-L3 and H.F. transformer coils L4-L9 are in two screened units on the chassis deck. The aerial coil assembly also contains the small M.W. coupling condenser C2.

L13 and L14 are mains filter chokes mounted underneath the chassis.