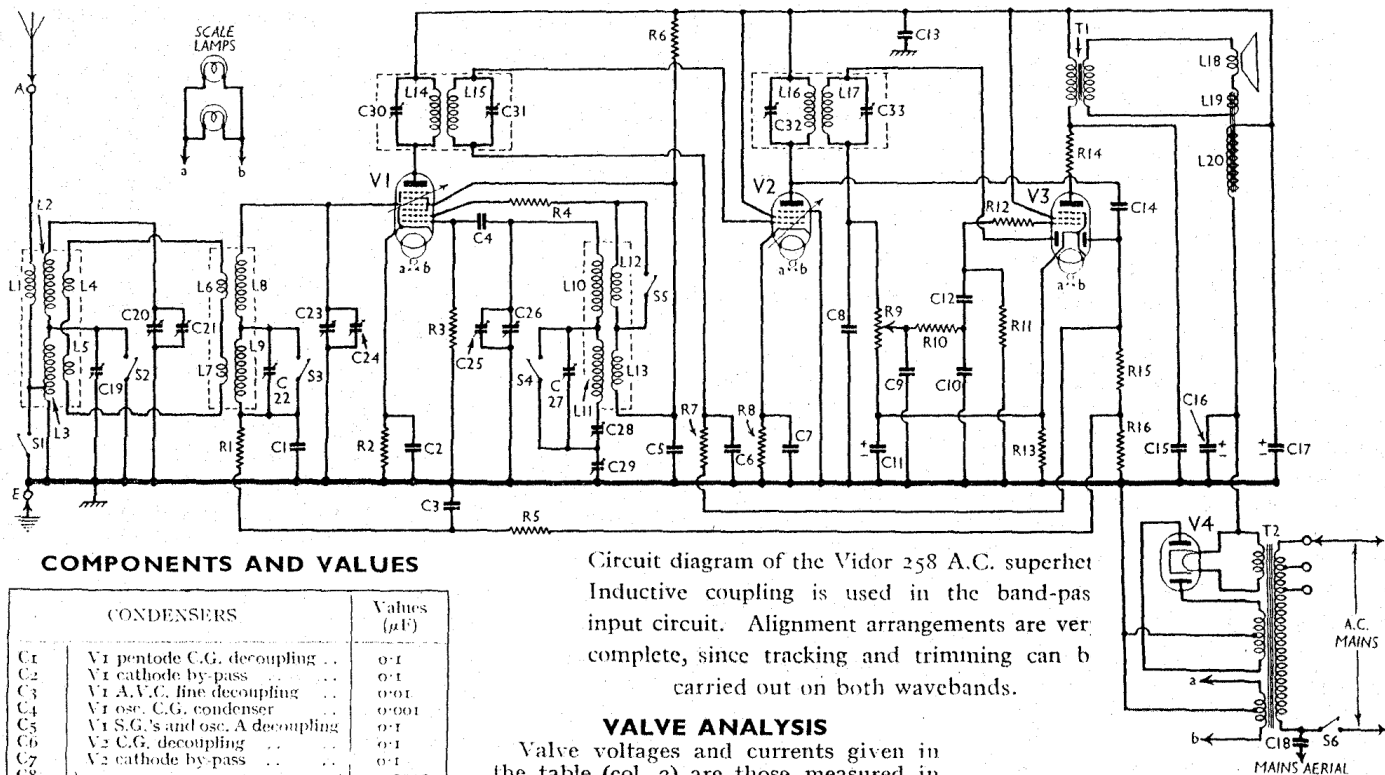


VIDOR - 258



COMPONENTS AND VALUES

CONDENSERS		Values (μF)
C1	V1 pentode C.G. decoupling	0.1
C2	V1 cathode by-pass	0.1
C3	V1 A.V.C. line decoupling	0.001
C4	V1 osc. C.G. condenser	0.001
C5	V1 S.G.'s and osc. A decoupling	0.1
C6	V2 C.G. decoupling	0.1
C7	V2 cathode by-pass	0.1
C8		0.0002
C9	I.F. by-passes	0.0001
C10		0.0001
C11	V3 cathode by-pass	50.0
C12	I.F. coupling to V3	0.01
C13	H.T. supply H.F. by-pass	0.1
C14	V3 A.V.C. diode coupling	0.0001
C15	Fixed tone corrector	0.001
C16		8.0
C17	H.T. smoothing	16.0
C18	Mains aerial coupling	0.0001
C19	Band-pass pri. L.W. trimmer	
C20	Band-pass pri. tuning	
C21	Band-pass pri. M.W. trimmer	
C22	Band-pass sec. L.W. trimmer	
C23	Band-pass sec. tuning	
C24	Band-pass sec. M.W. trimmer	
C25	Oscillator M.W. trimmer	
C26	Oscillator tuning	
C27	Oscillator L.W. trimmer	
C28	Oscillator L.W. tracker	
C29	Oscillator M.W. tracker	
C30	1st I.F. trans. pri. tuning	
C31	1st I.F. trans. sec. tuning	
C32	2nd I.F. trans. pri. tuning	
C33	2nd I.F. trans. sec. tuning	

* Electrolytic, † Variable, ‡ Pre-set.

RESISTANCES		Values (ohms)
R1	V1 pentode C.G. decoupling	500,000
R2	V1 fixed G.B. resistance	200
R3	V1 osc. C.G. resistance	50,000
R4	V1 osc. anode stabiliser	200
R5	V1 A.V.C. line decoupling	500,000
R6	V1 S.G.'s and osc. A decoupling	30,000
R7	V2 C.G. decoupling	500,000
R8	V2 fixed G.B. resistance	150
R9	Manual volume control	500,000
R10	I.F. stopper	25,000
R11	V3 C.G. resistance	500,000
R12	V3 C.G. I.F. stopper	100,000
R13	V3 G.B. resistance	150
R14	V3 anode circuit stabiliser	50
R15		500,000
R16	V3 A.V.C. diode load	500,000

OTHER COMPONENTS		Approx. Values (ohms)
L1	M.W. aerial coupling coil	4.0
L2	Band-pass primary coils	5.5
L3		9.0
L4	Band-pass coupling coils	0.4
L5		
L6	Band-pass coupling coils	0.4
L7		
L8	Band-pass secondary coils	5.0
L9		9.0
L10	Oscillator tuning coils	4.5
L11		5.7
L12	Oscillator reaction coils	4.3
L13		1.2
L14	1st I.F. trans. Pri.	30.0
L15	1st I.F. trans. Sec.	30.0
L16	2nd I.F. trans. Pri.	30.0
L17	2nd I.F. trans. Sec.	30.0
L18	Speaker speech coil	2.7
L19	Hum neutralising coil	0.1
L20	Speaker field coil	2,000.0
Tr	Speaker input trans. Pri.	570.0
	Sec.	0.45

Circuit diagram of the Vidor 258 A.C. superhet Inductive coupling is used in the band-pass input circuit. Alignment arrangements are very complete, since tracking and trimming can be carried out on both wavebands.

VALVE ANALYSIS

Valve voltages and currents given in the table (col. 2) are those measured in our receiver when it was operating on mains of 225 V, using the 230 V tapping on the mains transformer. The receiver was tuned to the lowest wavelength on the medium band and the volume control was at maximum, but there was no signal input.

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

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 FC4*	240	1.2	80	3.8
V2 VP4B	240	14.0	240	5.0
V3 AC/2Pen/DD	225	29.0	240	6.1
V4 R2	315†			

* Oscillator anode (G2) 80 V, 1.7 mA.

† Each anode A.C.

GENERAL NOTES

Switches.—S1-S5 are the wavechange switches, in a single unit beneath the chassis. Note that three of the switches in the unit are blank. All the switches that are used are *closed* on the M.W. band and *open* on the L.W. band.

S6 is the Q.M.B. mains switch, gauged with the volume control R9.

Coils. L1-L5, L6-L9 and L10-L13 are in three screened units on the chassis deck, while the I.F. transformers, L14, L15 and L16, L17 are in two further screened units.

Scale Lamps.—These are two M.E.S. types, both rated at 6V, 0.3 A.

Condensers C16, C17.—These are two dry electrolytics in a single unit beneath the chassis, with a common negative (black) lead. The yellow lead is the positive of C16 (8μF) and the red the positive of C17 (10μF).

CIRCUIT ALIGNMENT

I.F. Stages.—Short out oscillator grid coils by means of a wire connected between oscillator grid (pin 2) of V1 and chassis. Connect a 0.25 MO resistance between control grid (top cap) of V1 and chassis. Inject a 130 KC/S signal between top cap of V1 and chassis. Adjust C33, C32, C31 and C30 for maximum output, in that order. Re-check these adjustments, then remove the 0.25 MO resistance and the oscillator short circuit.

H.F. Stages.—Inject a 210 m. signal between A and E sockets, with a dummy aerial in series. Switch set to M.W. The pointer should be parallel to the bottom of the scale at maximum and minimum of the gang condenser. Tune set to 210 m. on the scale, then adjust C25, C24 and C21 for maximum output.

Feed in a 500 m. signal, and tune it in, irrespective of pointer indication. Adjust C29 for maximum output, rocking the gang for optimum results. Return to a 210 m. signal, and see whether the calibration still holds. If not, set pointer to 210 m. again, and re-adjust C25, C24 and C21. Return again to 500 m. and re-adjust C29 if necessary.

Switch set to L.W., inject a 1,000 m. signal, set pointer to 1,000 m. on scale, and adjust C19, C22 and C27. Inject a 2,000 m. signal, tune it in, and adjust C28, rocking the gang for optimum results. Return to 1,000 m., and re-adjust if necessary.