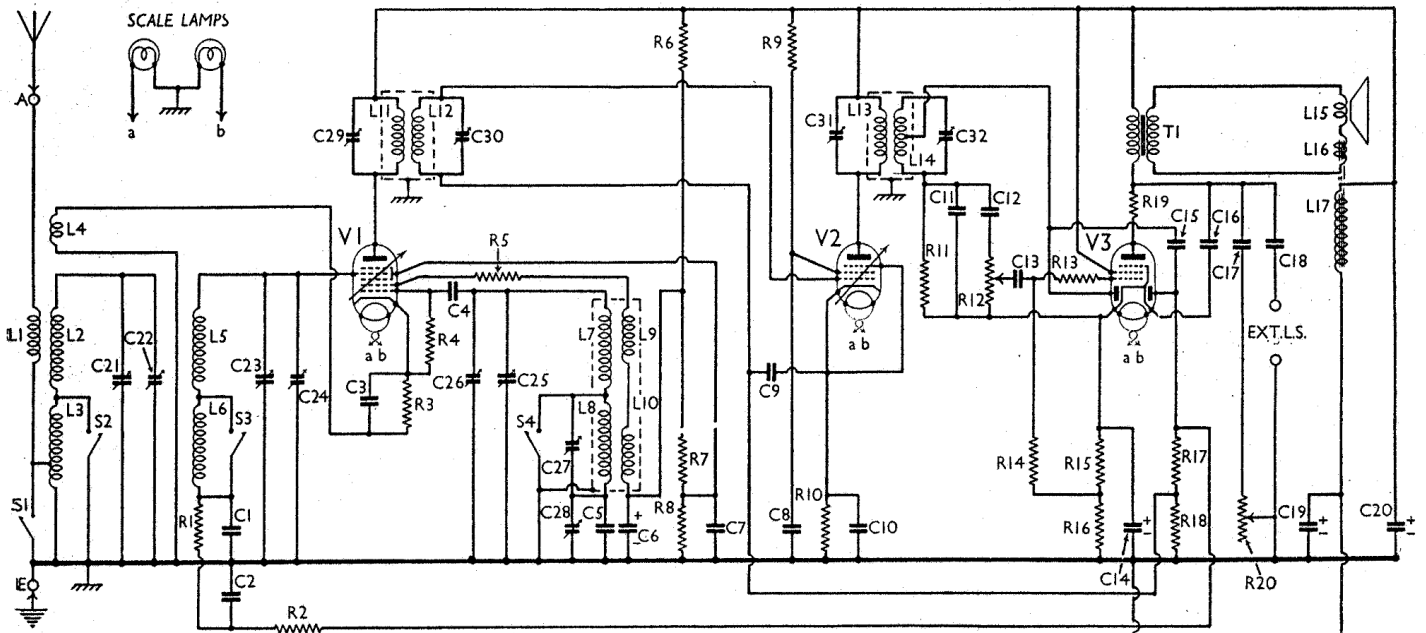


GEC - AC 4



Circuit diagram of the G.E.C. Superhet A.C.4 Intermediate frequency 125 KC/S.

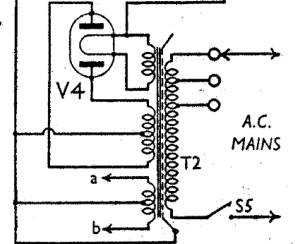
COMPONENTS AND VALUES

Resistances		Values (ohms)
R1	V1 pent. cont. grid decoupling	220,000
R2	V1 A.V.C. circuit decoupling	440,000
R3	V1 fixed G.B. resistance	500
R4	V1 oscillator grid resistance	99,000
R5	V1 osc. anode series resistance	2,500
R6	V1 S.G.'s and osc. anode H.T. supply potential divider	15,000
R7		22,000
R8		30,000
R9	V2 S.G. H.T. feed	77,000
R10	V2 fixed G.B. resistance	350
R11	V3 rectifier diode load	440,000
R12	Manual volume control	500,000
R13	V3 cont. grid I.F. stopper	77,000
R14	V3 grid resistance	440,000
R15	V3 G.B. and A.V.C. delay voltage resistances	90
R16		150
R17	V3 A.V.C. diode load	660,000
R18		330,000
R19	V3 anode circuit stabiliser	100
R20	Variable tone control	50,000

Condensers		Values (μF)
C1	V1 pent. cont. grid decoupling	0.05
C2	V1 A.V.C. circuit decoupling	0.05
C3	V1 cathode by-pass	0.05
C4	V1 oscillator grid condenser	0.0001
C5	Osc. L.W. tracker, fixed	0.0005
C6	V1 osc. anode decoupling	3.0
C7	V1 S.G.'s by-pass	0.05
C8	V2 S.G. by-pass	0.1
C9	V2 cont. grid decoupling	0.05
C10	V2 cathode by-pass	0.1
C11	I.F. by-pass	0.0003
C12	L.F. coupling to R12	0.02

Condensers (contd.)		Values (μF)
C13	L.F. coupling to V3	0.02
C14	V3 cathode by-pass	50.0
C15	Coupling to V3 A.V.C. diode	0.0001
C16	V3 anode fixed tone compensator	0.003
C17	Variable tone control condenser	0.02
C18	External speaker coupling	0.1
C19	H.T. smoothing	7.0
C20		7.0
C21	Band-pass primary tuning	—
C22	Band-pass primary trimmer	—
C23	Band-pass secondary tuning	—
C24	Band-pass secondary trimmer	—
C25	Oscillator tuning	—
C26	Oscillator main trimmer	—
C27	Oscillator L.W. trimmer	—
C28	Oscillator L.W. tracker, pre-set	—
C29	1st I.F. trans. pri. tuning	—
C30	1st I.F. trans. sec. tuning	—
C31	2nd I.F. trans. pri. tuning	—
C32	2nd I.F. trans. sec. tuning	—

Other Components		Values (ohms)
L1	Aerial M.W. coupling coil	1.6
L2	Band-pass primary coils	4.0
L3		17.0
L4	Image suppression coil	0.15
L5	Band-pass secondary coils	3.9
L6		17.0
L7	Oscillator tuning coils	3.8
L8		11.5
L9	Oscillator anode coils	2.5
L10		—
L11	1st I.F. trans. Pri.	82.0
L12	1st I.F. trans. Sec.	82.0
L13	2nd I.F. trans. Pri.	82.0
L14	2nd I.F. trans. Sec.	82.0
L15	Speaker speech coil	1.9
L16	Hum neutralising coil	0.05
L17	Speaker field coil	1.400
T1	Speaker input trans. Pri.	400
		0.8
T2	Mains trans. Pri. total	41.0
		0.08
		0.12
		540
S1-S4	Waveband switches, ganged	—
S5	Mains switch, ganged R20	—



VALVE ANALYSIS

The voltage and current readings listed in the table are those given by the G.E.C. for an average chassis working with the aerial disconnected and the tuning scale pointer set at the top of the M.W. band.

All receiving valve voltages were measured with an electrostatic voltmeter from cathode in each case, but similar results should be obtained with a low-consumption meter of the moving-coil type. The usual precautions against instability may be necessary when measuring currents of V1 and V2.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 MX40*	250	3.0	75	2.0
V2 VMP4G	250	4.0	74	2.5
V3 DN4†	230	32.0	245	8.0
V4 UR2	320†	—	—	—

* Osc. anode (G2) 150V 1.5 mA.

† A.C., each anode to chassis.