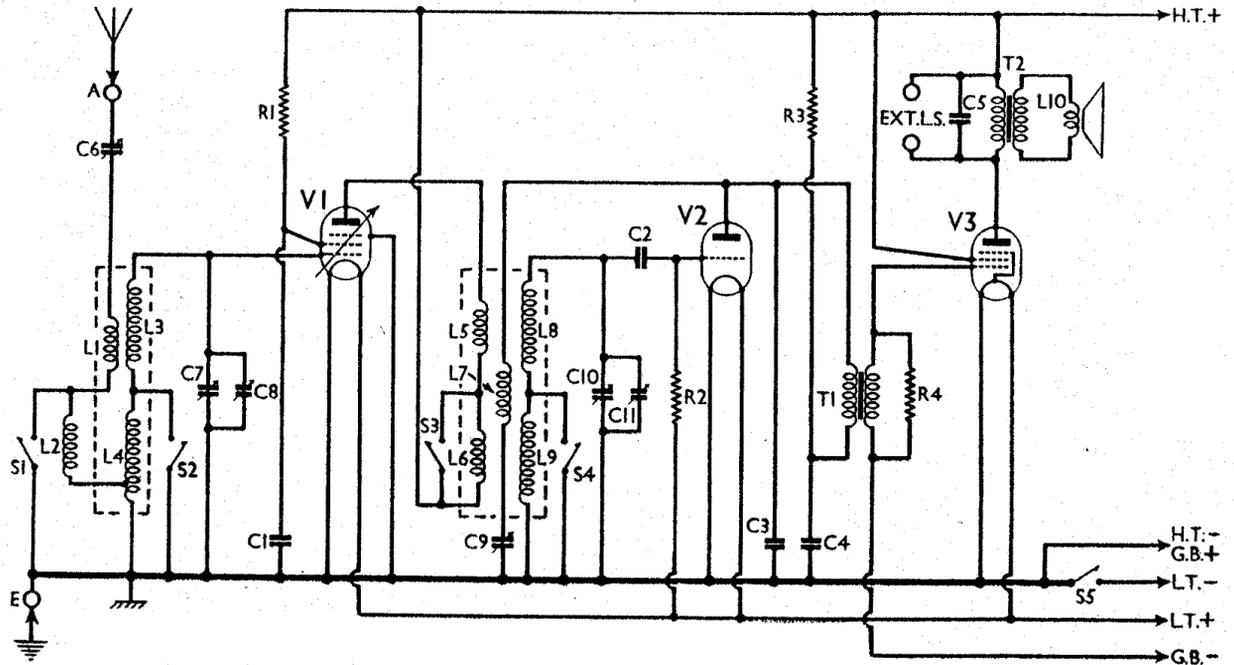


BLUE SPOT - BATTERY 3

◇
Circuit diagram of the Blue Spot "Battery 3" receiver. No scale lamp is shown, but actually one is connected in parallel with the filament circuit.
◇



COMPONENTS AND VALUES

Resistances		Values (ohms)
R1	V1 S.G. H.T. feed	100,000*
R2	V2 grid leak	1,000,000
R3	V2 anode decoupling	19,000
R4	Intervalve trans. sec. shunt	1,000,000

* With VP21 valve; 19,000 Ω with VP2.

Condensers		Values (μF)
C1	V1 S.G. by-pass	0.1
C2	V2 grid condenser	0.0001
C3	V2 anode H.F. by-pass	0.0001
C4	V2 anode decoupling	0.5
C5	Tone compensator	0.005
C6†	Aerial series condenser (selectivity)	0.0005
C7†	Aerial circuit tuning	0.0005
C8†	Aerial circuit trimmer	---
C9†	Reaction control	0.0005
C10†	H.F. transformer tuning	0.0005
C11†	H.F. transformer trimmer	---

† Variable. ‡ Pre-set.

Other Components		Values (ohms)
L1	Aerial coupling coil	3.0
L2	Aerial choke coil (L.W.)	5.25
L3	Aerial tuning coils	3.0
L4		33.0
L5	H.F. transformer primary	3.0
L6		12.5
L7	Reaction coil	10.0
L8	H.F. transformer secondary	3.0
L9		29.0
L10	Speaker speech coil	2.0
T1	Intervalve trans. { Pri. ... 850.0 Sec. ... 10,000.0	
T2	Speaker input trans. { Pri. ... 1,000.0 Sec. ... 0.3	
S1-S4	Waveband switches	---
S5	L.T. switch	---

VALVE ANALYSIS

Measurements of valve voltages and currents given in the table below were taken with the reaction and aerial series condensers at minimum and with 120 V H.T. and 4.5 V G.B. obtained from new batteries. There was no signal input.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 VP21	120	2.9	50	0.6
V2 HL2	70	2.0	---	---
V3 PT2	115	4.5	120	0.9

GENERAL NOTES

Switches.—S1-S4 are the wavechange switches, ganged in a single rotary unit, operated by a horizontal lever projecting through the front of the chassis and the cabinet. When the lever is pushed to the right (M.W.), all the switches are closed, while with the lever to the left (L.W.), they are all open.

S5 is the Q.M.B. L.T. switch, fitted at the left-hand side of the cabinet.

Coils.—These, with the exception of L2, are in two screened units on the chassis deck. L2 is in two sections on a tubular former mounted beneath the chassis, below the L1, L3, L4 unit.