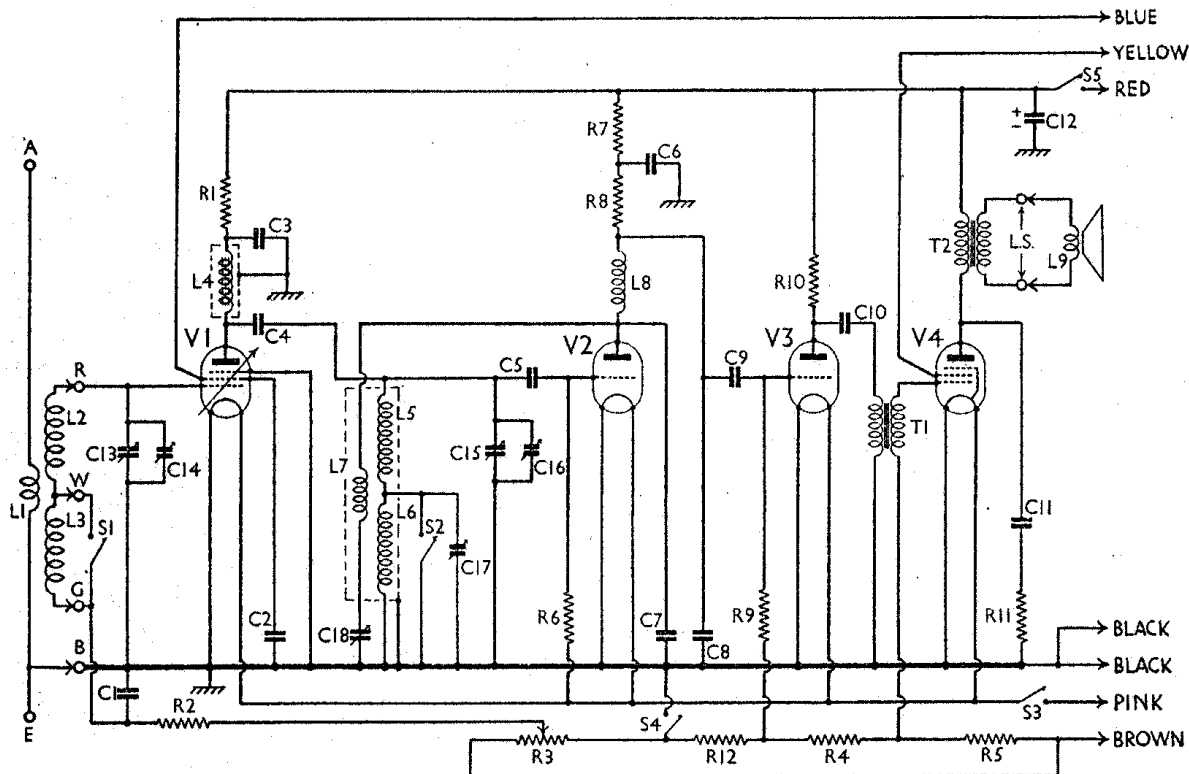


# PYE - T/Q



The circuit diagram of the Pye T/Q battery portable receiver. Coils L1, L2 and L3 are the frame aerial windings, L1 being the coil for external aerial and earth coupling. The letters R, W, G and B refer to the connections of the frame aerial to the receiver.

## COMPONENTS AND VALUES

Resistances		Values (ohms)
R1	V1 anode decoupling ..	5,000
R2	V1 cont. grid decoupling ..	110,000
R3*	V1 gain control (volume) ..	2,500
R4	Parts of G.B. potential divider ..	300
R5	V2 grid leak ..	600
R6	V2 anode decoupling ..	2,100,000
R7	V2 anode resistance ..	30,000
R8	V3 grid resistance ..	510,000
R9	V3 anode resistance ..	50,000
R10	Part of V4 impedance corrector ..	16,000
R11	Part of G.B. pot. divider ..	150
R12		

\*Ganged with reaction condenser C18.

Condensers		Values (μF)
C1	V1 cont. grid decoupling ..	0.1
C2	V1 S.G. by-pass ..	0.5
C3	V1 anode decoupling ..	0.1
C4	H.F. coupling to T.G. circuit ..	0.00005
C5	V2 grid condenser ..	0.00005
C6	V2 anode decoupling ..	0.5
C7	V2 anode H.F. by-passes ..	0.0002
C8		0.001
C9	L.F. coupling to V3 ..	0.025
C10	L.F. coupling to T1 ..	0.1
C11	Part of V4 impedance corrector ..	0.0025
C12	H.T. reservoir ..	8.0
C13	Frame aerial tuning ..	—
C14	Frame aerial trimmer ..	—
C15	Grid circuit tuning ..	—
C16	Grid circuit main trimmer ..	—
C17	Grid circuit L.W. trimmer ..	—
C18*	Reaction condenser ..	—

\* Ganged with gain control R3.

Other Components		Values (ohms)
L1	External aerial coupling coil ..	0.2
L2	Frame aerial windings ..	1.8
L3	V1 anode H.F. choke ..	20.8
L4		660.0
L5	Tuned-grid coupling coils ..	2.2
L6		16.0
L7	Reaction coil ..	2.4
L8	V2 anode H.F. choke ..	350.0
L9	Speaker speech coil ..	1.7
T1	Intervalve transformer ..	790.0
T2	Output transformer ..	4,560
S1-S2	Waveband switches, ganged ..	840.0
S3	Filament switch ..	0.3
S4	G.B. switch ..	—
S5	H.T. switch ..	—

## VALVE ANALYSIS

The voltage and current readings listed in the table are those given by Pye for an average chassis working with a new H.T. battery, under no signal conditions with the volume control R3 at maximum, but with no reaction. The voltage applied to the auxiliary grid of V4 will depend on the letter marked on the valve, and hence upon the position of the yellow plug in the battery.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 K50M ..	122	0.9	90	0.2
V2 K30C ..	62	1.1	—	—
V3 K30C ..	77	1.0	—	—
V4 K70B ..	127	4.5	127.5*	0.7

\* In our receiver.