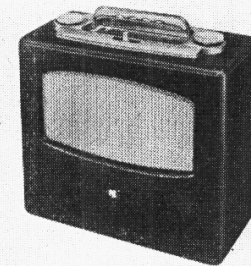


"TRADER" SERVICE SHEET

918

PYE 79B

"NEW BABY Q"



A 1949 version of the "New Baby Q," the model 79B (or L79B), is a 4-valve 2-band all-dry battery portable super-het employing button-based 7-pin miniature valves. The waveband ranges are 185-560 m and 1,000-2,000 m. Spring-clip connectors permit dismantling without the need for soldering.

Release date and original price: April 1949; £14 14s complete with batteries. Purchase Tax extra.

CIRCUIT DESCRIPTION

Tuned frame aerial input by L1, C23 (M.W.), with the addition of loading coil L2 on L.W., precedes a heptode valve (V1, Mullard DK91) operating as frequency changer with electron coupling.

Oscillator grid coils L3 (M.W.), L3, L4 (L.W.), are tuned by C24, with parallel trimming by C25 (M.W.), C6, C26 (L.W.), and series tracking by C7 on both wavebands. Inductive reaction coupling by L5.

Second valve (V2, Mullard DF91) is a variable-mu R.F. pentode operating as intermediate frequency amplifier with tuned transformer couplings C3, L6, L7, C4 and C9, L8, L9, C10, in which the tuning capacitors are fixed and alignment is effected by varying the positions of the iron-dust cores.

Intermediate frequency 465 kc/s.

Diode second detector is part of single diode pentode valve (V3, Mullard DAF91). Audio frequency component in rectified output is developed across load resistor R5, and passed via C13, manual volume control R6, and C14, R7, to grid of pentode section, which operates as A.F. amplifier. I.F. filtering by C11, R3, C12 in diode circuit.

The D.C. potential developed across R5 is tapped off and fed back, through a decoupling network R4, C2, as G.B. to F.C. and I.F. valves, giving automatic gain control.

Resistance-capacitance coupling by R9, C16, R10 between V3 pentode and pentode output valve (V4, Mullard DL92), whose twin filament sections are in parallel. Fixed tone correction by C18 in V4 anode circuit. The A.F. voltage developed across T1 secondary winding is applied to a potential divider network R12, C19, R13, from which a fraction of the voltage is tapped off and fed to V3 C.G. circuit, giving negative feedback.

Fixed G.B. for V4 is obtained from the drop across R14 in the H.T. negative lead to chassis. H.T. circuit R.F. filtering by C8.

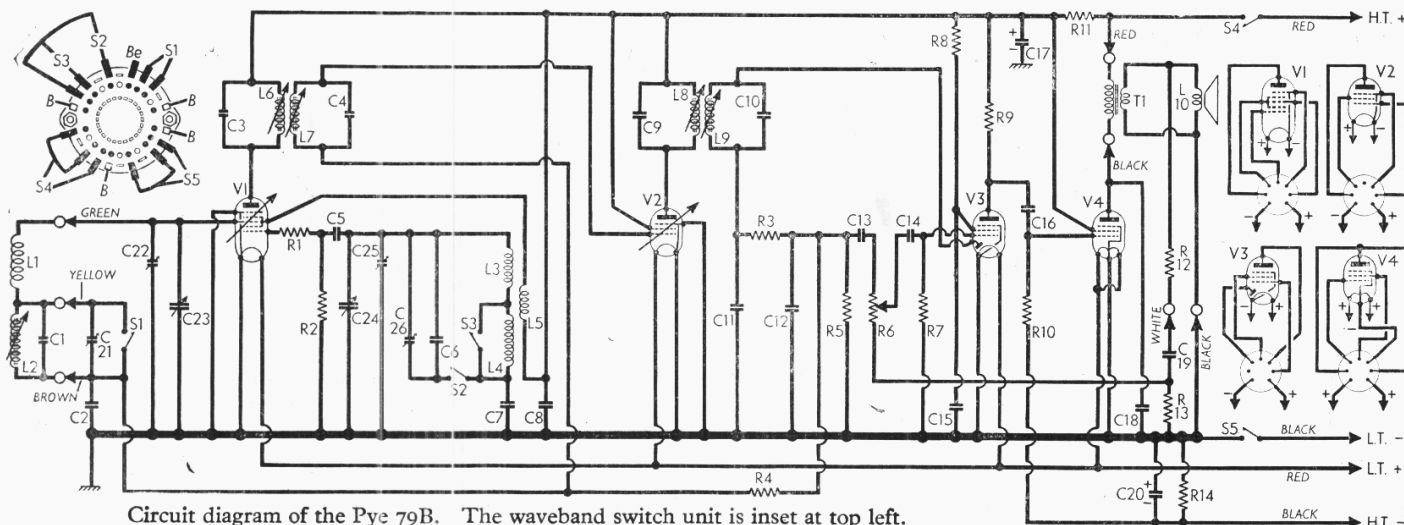
COMPONENTS AND VALUES

CAPACITORS		Values (µF)	Locations
C1	Aerial L.W. trim...	0-00005	—
C2	A.G.C. decoup. ...	0-05	J6
C3	1st I.F. transformer tuning ...	0-00007	C2
C4	V1 osc. C.G. ...	0-00007	C2
C5	V1 osc. C.G. ...	0-0002	H5
C6	Osc. L.W. trim. ...	0-00033	B2
C7	Osc. tracker ...	0-0005	B2
C8	H.T. R.F. by-pass	0-1	J5
C9	2nd I.F. transformer tuning ...	0-00014	C4
C10	2nd I.F. transformer tuning ...	0-00014	C4
C11	I.F. by-passes ...	0-0001	G7
C12	I.F. by-passes ...	0-0001	H7
C13	A.F. coupling ...	0-01	G7
C14	A.F. coupling ...	0-002	H8
C15	V3 S.G. decoup. ...	0-05	J7
C16	A.F. coupling ...	0-01	H7
C17*	H.T. feed decoup. ...	8-0	J6
C18	Tone corrector ...	0-005	J8
C19	F.-B.-coupling ...	0-1	E1
C20*	V4 G.B. by-pass ...	50-0	J7
C21†	Aerial L.W. trim. ...	0-00005	D1
C22‡	Aerial M.W. trim. ...	—	A3
C23†	Aerial tuning ...	0-000532§	B2
C24†	Oscillator tuning ...	0-000532§	B2
C25†	Osc. M.W. trim. ...	—	B3
C26‡	Osc. L.W. trim. ...	0-00005	B1

RESISTORS		Values (ohms)	Locations
R1	Osc. stabilizer ...	4,700	G5
R2	V1 osc. C.G. ...	100,000	G5
R3	I.F. stopper ...	47,000	G8
R4	A.G.C. decoup. ...	4,700,000	H6
R5	Diode load ...	470,000	G8
R6	Volume control ...	1,000,000	E1
R7	V3 pent. C.G. ...	10,000,000	H8
R8	V3 S.G. H.T. feed ...	3,300,000	G8
R9	V3 pent. load ...	220,000	H8
R10	V4 C.G. resistor ...	1,000,000	J6
R11	H.T. feed resistor ...	4,700	F6
R12	Negative feed-back ...	10,000	—
R13	Potential divider ...	4,700	E1
R14	V4 G.B. resistor ...	680	J8

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Frame aerial ...	1-0	—
L2	L.W. loading coil ...	9-0	—
L3	Oscillator tuning coils ...	1-5	B1
L4	Oscillator tuning coils ...	2-0	B1
L5	Osc. react. coil ...	8-5	B1
L6	1st I.F. Pri. ...	9-4	C2
L7	1st I.F. Sec. ...	9-4	C2
L8	2nd I.F. Pri. ...	6-7	C4
L9	2nd I.F. Sec. ...	6-7	C4
L10	Speech coil ...	2-75	—
T1	Speaker Pri. ...	870-0	—
	Speaker Sec. ...	0-25	—
S1-S3	W/band switches ...	—	D2
S4	H.T. circ. switch ...	—	D2
S5	L.T. circ. switch ...	—	D2

\* Electrolytic. † Variable. ‡ Pre-set. § "Swing" value, min. to max.



Circuit diagram of the Pye 79B. The waveband switch unit is inset at top left.

