

COMPONENTS AND VALUES

CAPACITORS		Values (μ F)
C1	Image suppressor ...	0.00002
C2	Aerial S.W. coupling ...	0.000016
C3	Aerial M.W., L.W. coupling ...	0.00001
C4	} Band-pass couplings ... {	0.016
C5		0.025
C6	Neutralising coupling ...	0.000002
C7	V1 A.V.C. line decoupling ...	0.1
C8	V1 cathode by-pass ...	0.05
C9	V1 osc. C.G. capacitor ...	0.0001
C10	Osc. fixed L.W. tracker ...	0.00065
C11	Osc. fixed M.W. tracker ...	0.001375
C12	V1 H.T. decoupling ...	0.1
C13	V2 C.G. decoupling ...	0.1
C14	V2 S.G. decoupling ...	0.1
C15	V2 anode decoupling ...	0.1
C16	V2 cathode by-pass ...	0.1
C17	I.F. by-pass ...	0.0001
C18	A.F. coupling to V3 triode ...	0.002
C19	Bass control capacitor ...	0.00025
C20	V3 anode decoupling ...	0.5
C21*	V3 cathode by-pass ...	25.0
C22	V3 A.V.C. diode feed ...	0.00001
C23*	H.T. smoothing ...	32.0
C24	V3 to V4 A.F. coupling ...	0.02
C25	V3 anode I.F. by-pass ...	0.0004
C26	Muting capacitor ...	0.1
C27	Tone control capacitor ...	0.008
C28	Fixed tone corrector ...	0.004
C29*	V4 cathode by-pass ...	25.0
C30*	H.T. smoothing capacitor ...	32.0
C31	Mains aerial coupling ...	0.0005
C32†	Aerial I.F. filter tuning ...	0.00017
C33†	Image suppressor ...	0.00003
C34†	Band-pass pri. trimmer ...	0.00003
C35†	Band-pass pri. tuning ...	0.00047
C36†	Band-pass sec. trimmer ...	0.00003
C37†	B.-P. sec. and S.W. tuning ...	0.00047
C38†	Osc. circuit tuning ...	0.00047
C39†	Osc. circ. S.W. trimmer ...	0.00003
C40†	Osc. circ. M.W. trimmer ...	0.00003
C41†	Osc. circ. L.W. trimmer ...	0.00003
C42†	Osc. circ. L.W. tracker ...	0.00017
C43†	Osc. circ. M.W. tracker ...	0.00017
C44†	1st I.F. trans. pri. tuning ...	0.00017
C45†	1st I.F. trans. sec. tuning ...	0.00017
C46†	2nd I.F. trans. pri. tuning ...	0.00017
C47†	2nd I.F. trans. sec. tuning ...	0.00017

RESISTORS		Values (ohms)
R1	V1 pent. C.G. decoupling ...	100,000
R2	V1 pent. C.G. stabiliser ...	50
R3	V1 fixed G.B. resistor ...	250
R4	V1 G.B. resistor (gram.) ...	2,500
R5	V1 osc. C.G. resistor ...	50,000
R6	V1 A.V.C. line decoupling ...	1,000,000
R7	} V1, V2, S.G.'s and osc. {	16,000*
R8		22,500†
R9	V2 C.G. decoupling ...	1,600,000
R10	V2 fixed G.B. resistor ...	1,250
R11	I.F. stopper ...	100,000
R12	Manual volume control ...	500,000
R13	I.F. stopper ...	1,800,000
R14	V3 triode C.G. resistor ...	1,600,000
R15	Bass control resistor ...	32
R16	Inverse feed-back coupling ...	32
R17	} V3 G.B. and A.V.C. delay {	3,200
R18		4,000
R19	V3 triode anode decoupling ...	50,000
R20	V3 triode anode load ...	100,000
R21	V3 A.V.C. diode load ...	500,000
R22	V4 C.G. resistor ...	800,000
R23	} V4 C.G. I.F. stoppers ... {	100,000
R24		1,000
R25	V4 S.G. stabiliser ...	32
R26	Variable tone control ...	2,580,000
R27	V4 G.B. resistor ...	160
R28	Inverse feed-back resistor ...	500
R29	Bass control resistor ...	10

* Two 32,000 Ω in parallel. † 12,500 and 10,000 Ω in series; or may be 20,000 Ω .

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 FC4	245 55	1.6 1.4	65	2.6
V2 VP4B	230	4.9	150	1.8
V3 TDD4	80	0.9	—	—
V4 PenA4	230	32.0	245	4.1
V5 DW2	240†	—	—	—

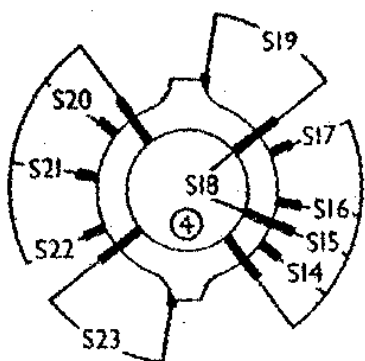
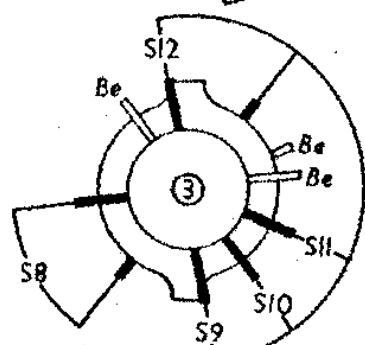
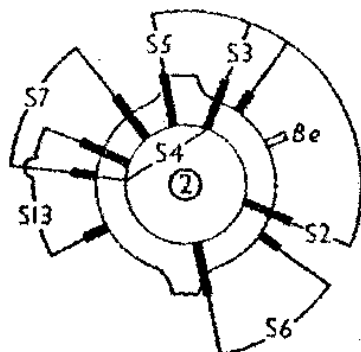
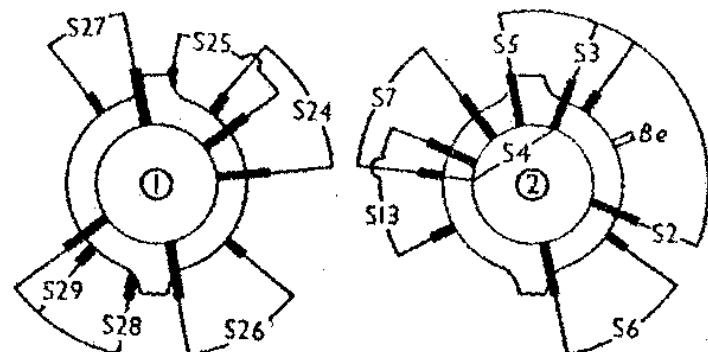
† Each anode A.C.

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial I.F. filter coil ...	140.0
L2	} Aerial M.W. and L.W. {	25.0
L3		95.0
L4	} Band-pass primary coils ... {	4.0
L5		40.0
L6	Aerial S.W. tuning coil ...	0.05
L7	} Band-pass secondary coils {	4.0
L8		37.0
L9	Osc. S.W. tuning coil ...	0.05
L10	Osc. S.W. reaction coil ...	30.0
L11	} Osc. M.W. and L.W. tuning {	10.0
L12		25.0
L13	} Osc. M.W. and L.W. re- {	4.0
L14		8.0
L15	} 1st I.F. { Primary ...	140.0
L16		140.0
L17	} 2nd I.F. { Primary ...	140.0
L18		135.0
L19	Speaker speech coil ...	5.0
L20	} Parts of inverse feed-back {	150.0
L21		7.0
L22	H.T. smoothing choke ...	385.0
T1	} Output { Pri. ...	310.0
		0.4
T2	} Mains { Heater sec. ...	0.04
		0.17
T.I.	Tuning indicator meter ...	2000.0
S1	Mains aerial switch ...	—
S2-23	Waveband and muting switches ...	—
S24-27	} Radio-gram. change {	—
S29		—
S28	} Bass control switches ...	—
S30-31		—
S32	Muting switch ...	—
S33	Internal speaker switch ...	—
S34-35	Mains circuit switches ...	—

MULLARD MAS4
= PHILIPS 790 A,
791 A et 797 A

* Electrolytic. † Variable. ‡ Pre-set.

SWITCH DIAGRAMS AND TABLE



The four main switch units looking at the underside of the chassis, from the rear. The associated table is below.

Switch	S.W.	M.W.	L.W.	Gram.
S2	○	—	—	—
S3	—	○	—	—
S4	—	—	—	○
S5	—	—	○	—
S6	—	○	—	—
S7	○	○	—	○
S8	—	○	—	○
S9	○	—	—	—
S10	—	○	—	—
S11	—	—	○	—
S12	—	—	—	○
S13	○	○	○	—
S14	○	—	—	—
S15	—	○	○	—
S16	—	○	—	—
S17	—	—	○	—
S18	—	—	—	○
S19	—	○	—	—
S20	○	—	—	—
S21	—	○	—	—
S22	—	—	○	—
S23	—	○	—	—
S24	○	○	○	—
S25	—	○	○	○
S26	—	—	—	○
S27	—	○	—	○
S28	—	○	○	○
S29	—	—	—	○

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