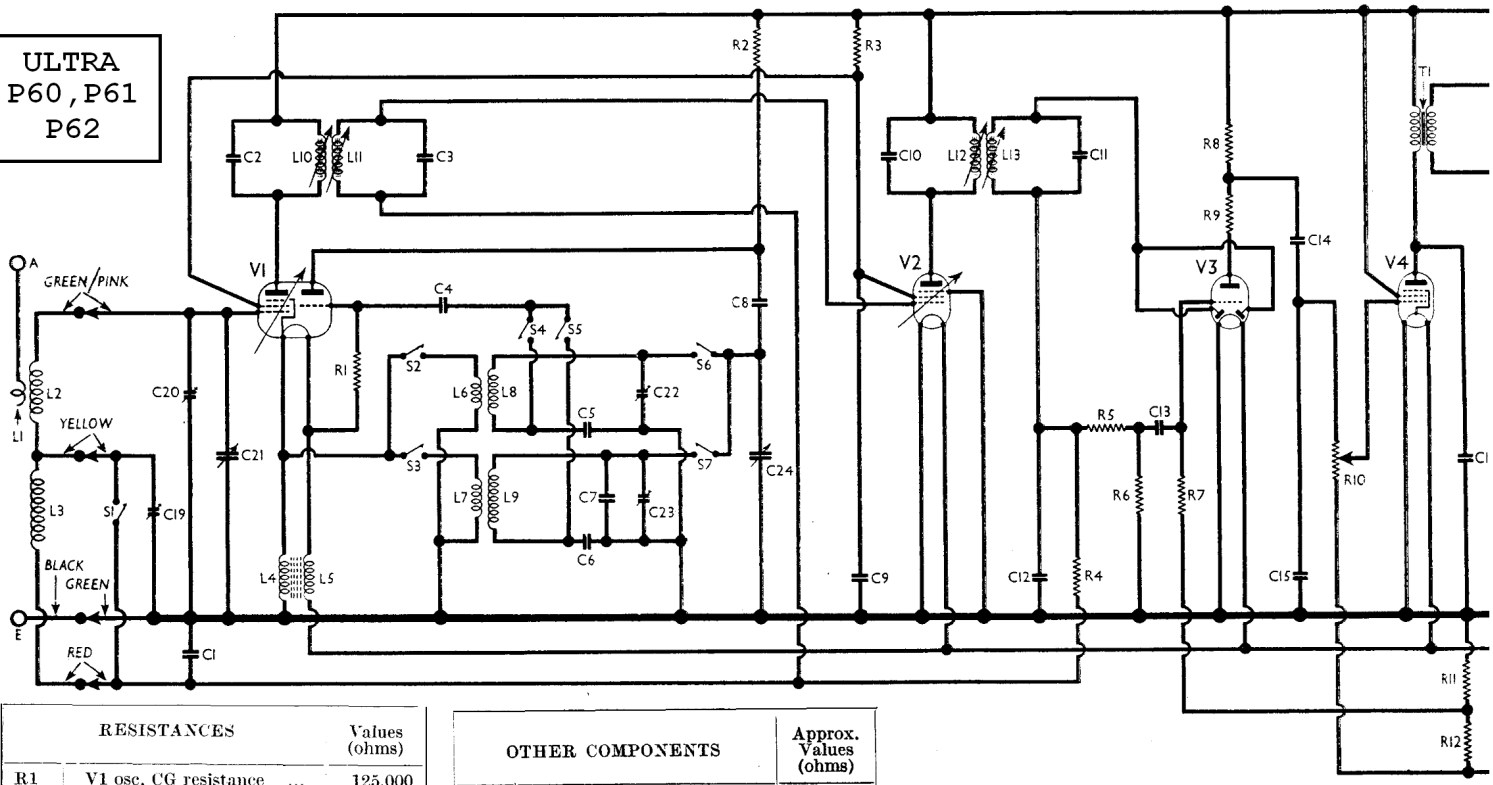
ULTRA P60, P61 P62

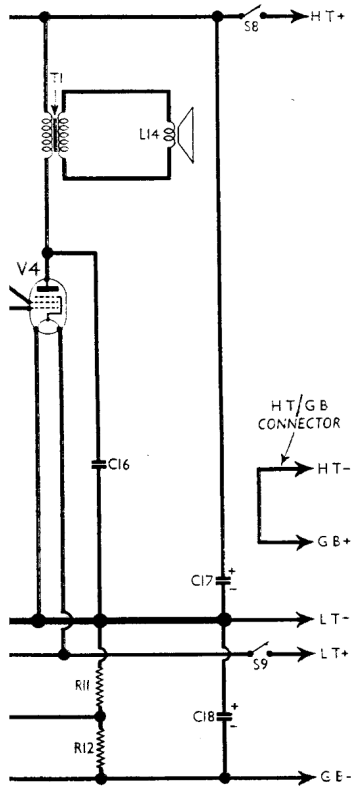


RESISTANCES		Values (ohms)
R1	V1 osc. CG resistance ...	125,000
R2	V1 osc. anode HT feed ...	25,000
R3	V1, V2 SG's HT feed ...	70,000
R4	AVC line decoupling ...	1,000,000
R5	IF stopper	25,000
R6	V3 signal diode load ...	500,000
R7	V3 triode CG resistance ...	1,000,000
R8	V3 triode anode load ...	40,000
R9	IF stopper	25,000
R10	Manual volume control ...	500,000
R11	V3 triode and V4 auto GB resistances ...	100
R12		260

CONDENSERS		Values (μF)
C1	AVC line decoupling ...	0·05
C2, C3	1st IF transformer tuning condensers	0·0001
C4	V1 osc. CG condenser ...	0·0005
C5	Osc. circuit MW tracker...	0·000456
C6	Osc. circuit LW tracker ...	0·000138
C7	Osc. circ. LW fixed trimmer	0·0001
C8	V1 osc. anode coupling ...	0·0002
C9	V1, V2 SG's decoupling ...	0·05
C10, C11	2nd IF transformer tuning condensers	0·0001
C12	IF by-pass	0·0001
C13	AF coupling to V3 triode...	0·01
C14	V3 triode to V4 AF coupling	0·01
C15	IF by-pass	0·0002
C16	Fixed tone corrector ...	0·002
C17*	HT circuit reservoir ...	2·0
C18*	Auto GB by-pass... ...	100·0
C19‡	Frame aerial LW trimmer	0·00004
C20‡	Frame aerial MW trimmer	0·00004
C21†	Frame aerial tuning ...	—
C22‡	Osc. circuit MW trimmer	0·00004
C23‡	Osc. circuit LW trimmer	0·00004
C24†	Oscillator circuit tuning...	—

* Electrolytic. † Variable. ‡ Pre-set.

OTHER COMPONENTS		Approx. Values (ohms)
L1	External aerial coupling...	—
L2, L3	Frame aerial windings ...	6·0 16·0
L4, L5	Cathode injector coils ...	0·2 0·2
L6, L7	Oscillator coupling coils...	0·8 1·6
L8	Osc. circ. MW tuning coil	5·0
L9	Osc. circ. LW tuning coil	12·0
L10	1st IF trans. Pri. ...	9·0
L11	1st IF trans. Sec. ...	9·0
L12	2nd IF trans. Pri. ...	9·0
L13	2nd IF trans. Sec. ...	9·0
L14	Speaker speech coil ...	2·0
T1	Speaker input trans. Pri.	550·0
	Sec.	0·5
S1-S7	Waveband switches ...	—
S8	HT circuit switch ...	—
S9	LT circuit switch... ...	—



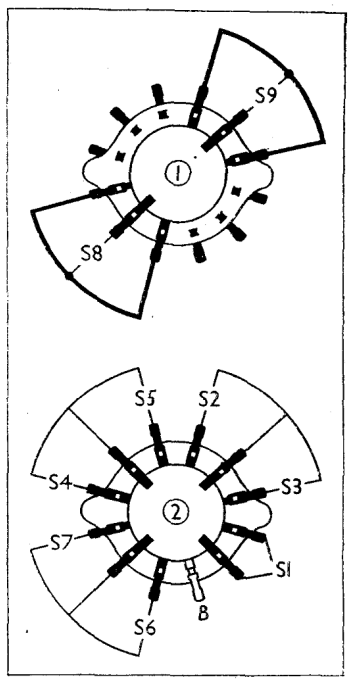
CIRCUIT ALIGNMENT

IF Stages.—Switch set to MW and turn gang to maximum. Remove top cap connector of **V1** and connect signal generator to top cap of this valve and to chassis. Also connect a 10,000 O resistance between top cap and chassis. Feed in a 510 KC/S signal, and adjust cores of **L13, L12, L11** and **L10** for maximum output. Check these settings, then remove signal generator and the 10,000 O resistance, and replace top cap connector of **V1.**

RF and Oscillator Stages.—Connect signal generator to external **A** and **E** sockets. In the case of the P60 and P62 it is necessary to keep the back of the cabinet open to reach the trimmers, and it is, therefore, advisable to place the HT and GB battery close to the frame aerials so that its position is similar to that which it occupies when the back is closed and the set is working normally.

MW.—Switch set to MW, tune to 200 m on scale, feed in a 200 m (1,500 KC/S) signal, and adjust **C22,** then **C20,** for maximum output. Check at 500 m.

LW.—Switch set to LW, tune to 1,000 m on scale, feed in a 1,000 m (300 KC/S) signal, and adjust **C23,** then **C19,** for maximum output. Check at 2,000 m.



Diagrams of the switch unit, drawn as seen in the direction of the arrows in the half-plan view.

Switch Table

Switch	MW	Off	LW
S1	C	—	—
S2	C	—	—
S3	—	—	C
S4	C	—	—
S5	—	—	C
S6	C	—	—
S7	—	—	C
S8	C	—	C
S9	C	—	C