

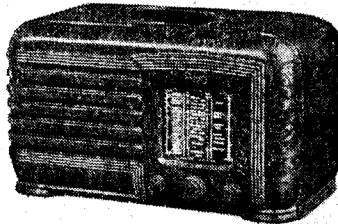
# PILOT - MAJOR MAESTRO

(Post War)

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial S.W. coupling coil...	0.3
L2	Aerial M.W. and L.W. coupling coil ...	2.9
L3	Aerial S.W. tuning coil ...	Very low
L4	Aerial M.W. tuning coil ...	3.0
L5	Aerial L.W. tuning coil ...	13.5
L6	Osc. S.W. tuning coil ...	Very low
L7	Osc. M.W. tuning coil ...	3.7
L8	Osc. L.W. tuning coil ...	7.0
L9	Osc. S.W. reaction coil ...	0.3
L10	Osc. L.W. reaction coil ...	100.0
L11	1st I.F. trans. { Pri. ...	10.0
L12		10.0
L13	2nd I.F. trans. { Pri. ...	10.0
L14		10.0
L15	Speaker speech coil ...	3.0
T1	Output trans. { Pri. ...	450.0
S1-S14	Waveband switches ...	0.4
S15	Mains switch, ganged R9...	—

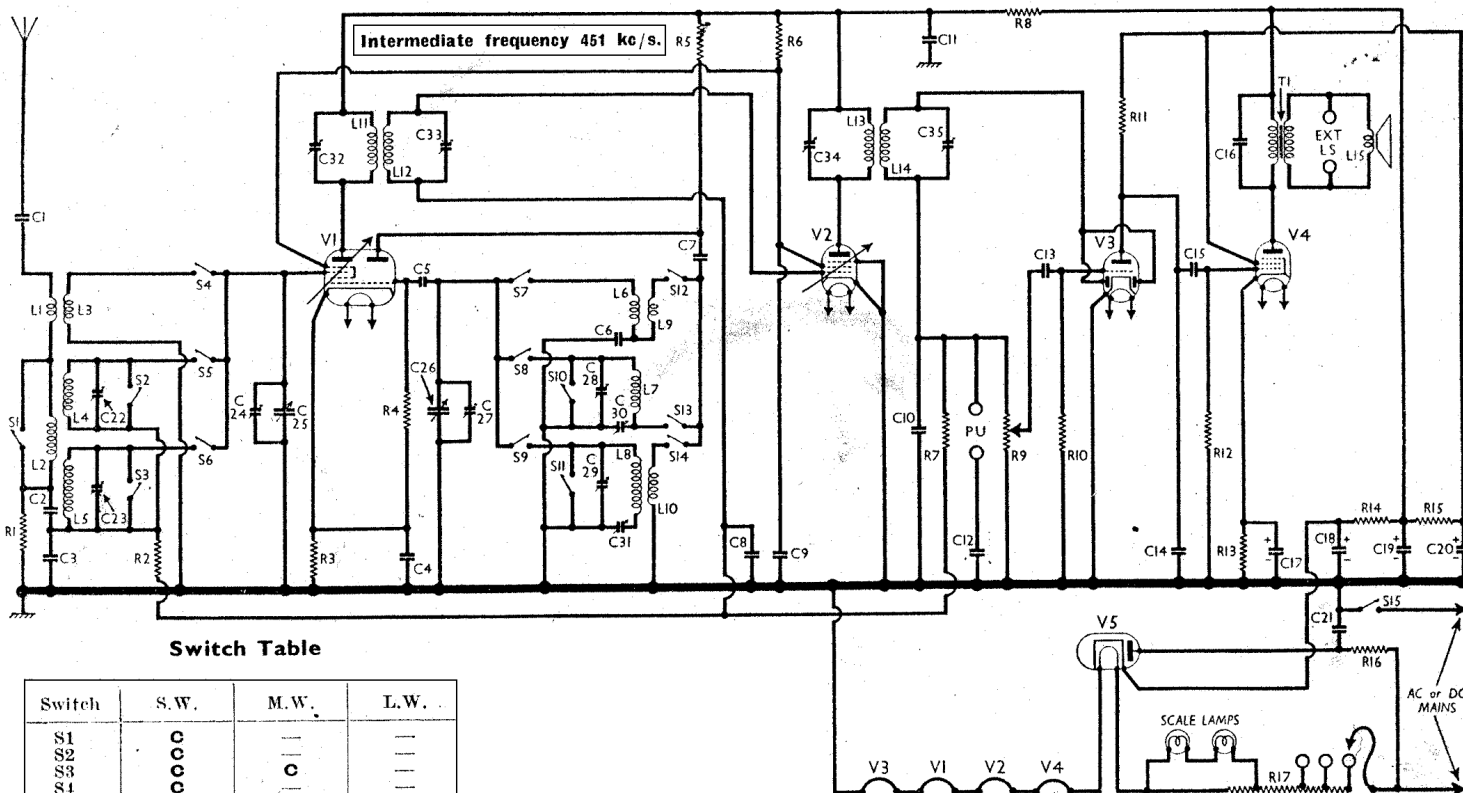
RESISTORS		Values (ohms)
R1	Aerial circuit shunt ...	1,000
R2	V1 hex. C.G. decoupling ...	100,000
R3	V1 fixed G.B. resistor ...	220
R4	V1 osc. C.G. resistor ...	47,000
R5	V1 osc. anode H.T. feed ...	22,000
R6	V1, V2 S.G.'s H.T. feed ...	6,800
R7	A.V.C. line decoupling ...	1,000,000
R8	V1, V2 H.T. decoupling ...	1,000
R9	Manual volume control ...	500,000
R10	V3 triode C.G. resistor ...	10,000,000
R11	V3 triode anode load ...	270,000
R12	V4 C.G. resistor ...	270,000
R13	V4 G.B. resistor ...	470
R14	H.T. smoothing resistors {	1,000
R15		22,000
R16	V5 anode surge limiter ...	100
R17	Heater ballast resistor ...	625*

\* Tapped at 150  $\Omega$  + 375  $\Omega$  + 50  $\Omega$  + 50  $\Omega$  from V5 heater.



CAPACITORS		Values ( $\mu$ F)
C1	Aerial isolator ...	0.001
C2	Aerial M.W. coupling cap- acitors ...	0.02
C3		0.002
C4	V1 cathode by-pass ...	0.05
C5	V1 osc. C.G. capacitor ...	0.00006
C6	Osc. circ. S.W. tracker ...	0.006
C7	V1 osc. anode coupling ...	0.0001
C8	V2 C.G. decoupling ...	0.1
C9	V1, V2 S.G.'s decoupling ...	0.1
C10	I.F. by-pass capacitor ...	0.0001
C11	V1, V2 H.T. decoupling ...	0.1
C12	Pick-up isolator ...	0.02
C13	A.F. coupling to V3 C.G. ...	0.002
C14	I.F. by-pass capacitor ...	0.0003
C15	A.F. coupling to V4 C.G. ...	0.01
C16	Fixed tone corrector ...	0.01
C17*	V4 cathode by-pass ...	25.0
C18*	H.T. smoothing capacitors {	16.0
C19*		16.0
C20*	Mains R.F. by-pass ...	8.0
C21		0.05
C22†	Aerial circ. M.W. trimmer ...	0.00005
C23†	Aerial circ. L.W. trimmer ...	0.0001
C24†	Aerial circ. S.W. trimmer ...	0.00003
C25†	Aerial circuit tuning ...	0.000528
C26†	Oscillator circuit tuning ...	0.000528
C27†	Osc. circ. S.W. trimmer ...	0.00003
C28†	Osc. circ. M.W. trimmer ...	0.00005
C29†	Osc. circ. L.W. trimmer ...	0.0001
C30†	Osc. circ. M.W. tracker ...	0.0007
C31†	Osc. circ. L.W. tracker ...	0.0003
C32†	1st I.F. trans. pri. tuning ...	—
C33†	1st I.F. trans. sec. tuning ...	—
C34†	2nd I.F. trans. pri. tuning ...	—
C35†	2nd I.F. trans. sec. tuning ...	—

\* Electrolytic. † Variable. ‡ Pre-set.



Switch Table

Switch	S.W.	M.W.	L.W.
S1	○	—	—
S2	○	—	—
S3	○	○	—
S4	○	—	—
S5	—	○	—
S6	—	○	○
S7	○	—	—
S8	—	○	—
S9	—	—	○
S10	—	—	○
S11	—	○	—
S12	—	—	—
S13	—	○	—
S14	—	—	○

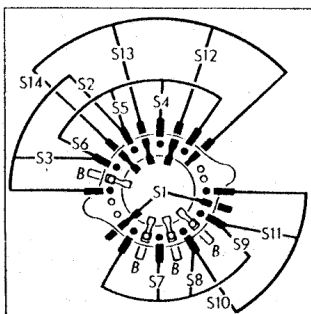


Diagram of the waveband switch unit seen from the rear of an inverted chassis. B indicates blank tags.

## CIRCUIT ALIGNMENT

**I.F. Stages.**—Connect signal generator via a 0.1  $\mu$ F capacitor in each lead to control grid (top cap) of V1 and chassis. Feed in a 451 kc/s (665.18 m) signal, and adjust C32, C33, C34 and C35 for maximum output. Repeat these adjustments.

**R.F. and Oscillator Stages.**—With gang at maximum, pointer should coincide with the lower ends of the scales. Connect signal generator to aerial side of C1 and, via a 0.1  $\mu$ F capacitor, to chassis.

**S.W.**—Switch set to S.W., tune to 15 m on scale, feed in a 15 m (20 Mc/s) signal, and adjust C27, then C24, for maximum output.

**M.W.**—Switch set to M.W., tune to 214 m on scale, feed in a 214 m (1,400 kc/s) signal, and adjust C28, then C22, for maximum output. Feed in a 500 m (600 kc/s) signal, tune it in, and adjust C30 for maximum output, while rocking the gang for optimum results.

**L.W.**—Switch set to L.W., tune to 1,000 m on scale, feed in a 1,000 m (300 kc/s) signal, and adjust C29, then C23, for maximum output. Feed in a 2,000 m (150 kc/s) signal, tune it in, and adjust C31 for maximum output, while rocking the gang for optimum results.

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 6K8GT	150	2.65	102	5.7
V2 6K7G	72	4.0	102	2.8
V3 6Q7G	150	12.0	102	2.8
V4 25A6G	35	0.2	100	4.0
V5 25Z4G†	162	26.5	100	4.0

† Cathode to chassis, 232 v, D.C.