PILOT
LITTLE MAESTRO 10AC

Valve	Anode (V)	Anode (mA)	Screen (V)	Screen (mA)	Cath. (V)
V1 6K8GT	180 Oscillator 97	1·6 3·8	75	2·6	—
V2 6K7GT	180	8·1	75	1·9	—
V3 6Q7GT	45	0·4	—	—	—
V4 6V6GT	175	24·0	140	1·5	6·7§
V5 6X5GT	218†	—	—	—	223

† A.C. § 10 V meter range.

Drive Cord Replacement.—Forty inches of Nylon braided glass yarn is required for the tuning drive cord, which is run as shown in the *sketch in col. 2, where it is drawn as seen from* the rear, neglecting obstructions, when the gang is at maximum capacitance.

	CAPACITORS	Values (μF)	Locations
C1	Aerial series ...	0·0003	A1
C2	Aerial L.W. shunt	0·0003	J3
C3	A.G.C. decoup. ...	0·1	H4
C4	Aerial L.W. trim	0·0001	A1
C5	V1 osc. C.G. ...	0·00006	A2
C6	Osc. anode coup.	0·00006	A2
C7	S.G's decoupling ...	0·1	J4
C8	I.F. by-pass ...	0·0003	G3
C9	A.F. coupling ...	0·002	F4
C10	H.T. feed decoup.	0·25	G5
C11	I.F. by-pass ...	0·0003	F4
C12	A.F. coupling ...	0·01	F4
C13	Tone corrector ...	0·01	F5
C14*	V4 cath. by-pass	25·0	F4
C15*	H.T. smoothing	16·0	E4
C16*	H.T. smoothing	16·0	E3
C17	Mains R.F. by-pass	0·05	E4
C18‡	I.F. filter tune ...	0·00025	A1
C19‡	Aerial M.W. trim	0·00003	A1
C20†	Aerial tuning ...	0·000483	A1
C21†	Oscillator tuning	0·000483	A2
C22‡	Osc. M.W. trim	0·00003	A2
C23‡	Osc. L.W. trim. ...	0·0001	A2
C24‡	Osc. L.W. tracker	0·0003	H5
C25‡	Osc. M.W. tracker	0·0007	H5
C26‡	1st I.F. transformer tuning ...	—	B2
C27‡		—	B2
C28‡	2nd I.F. transformer tuning ...	—	G4
C29‡		—	G4

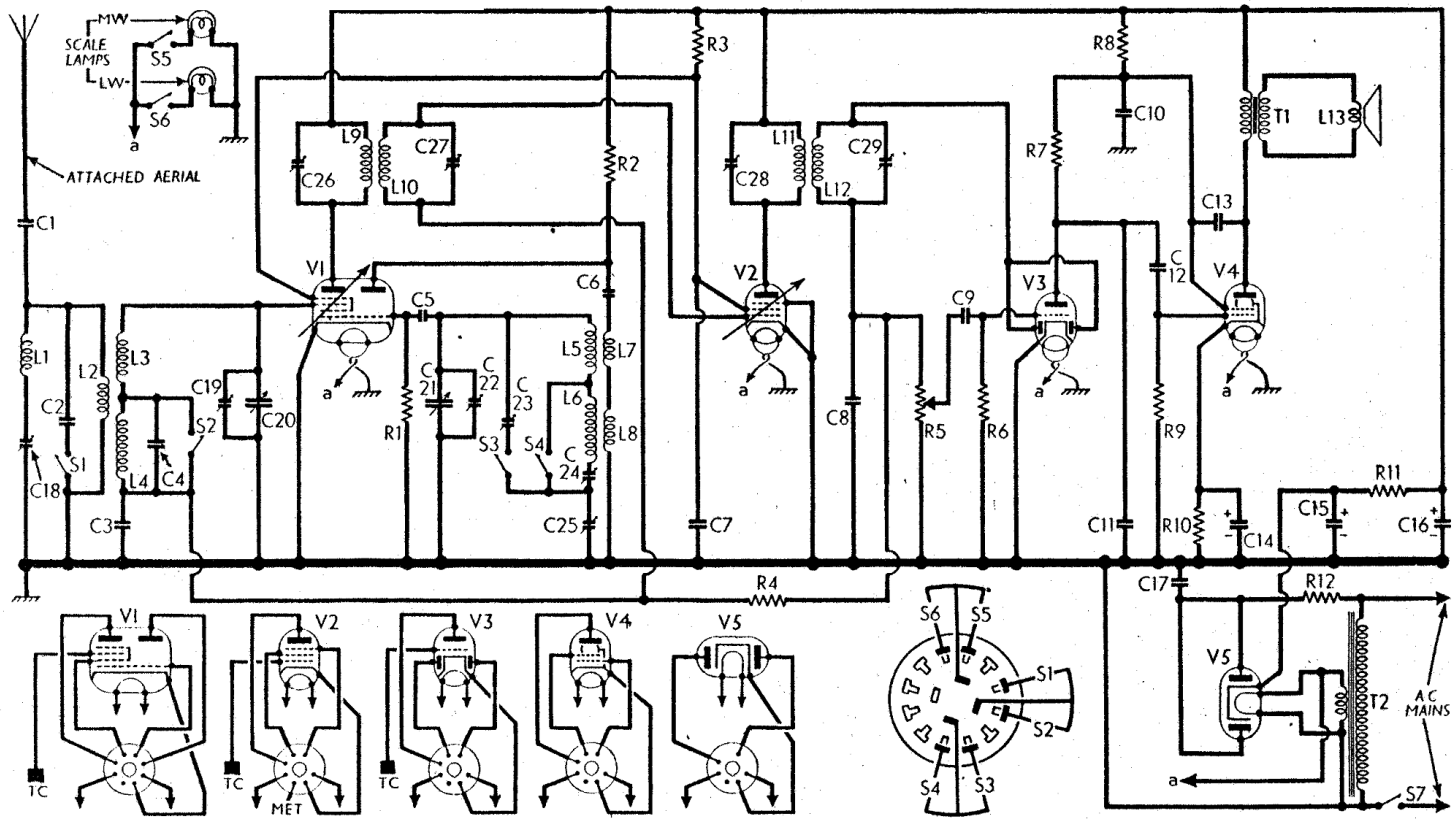
* Electrolytic. † Variable. ‡ Pre-set.

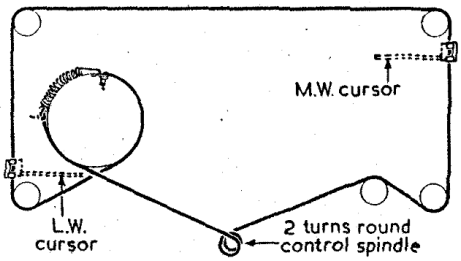
	RESISTORS	Values (ohms)	Locations
R1	V1 osc. C.G. ...	33,000	J5
R2	Osc. anode load ...	22,000	J5
R3	S.G.'s H.T. feed ...	22,000	G5
R4	A.G.C. decoup. ...	1,000,000	H4
R5	Volume control ...	250,000	F3
R6	V3 C.G. resistor ...	10,000,000	F4
R7	V3 triode load ...	270,000	F4
R8	H.T. feed decoup.	22,000	F5
R9	V4 C.G. resistor ...	1,000,000	F4
R10	V4 G.B. resistor...	270	F5
R11	H.T. smoothing ...	1,000	E5
R12	V5 surge limiter ...	100	E5

	OTHER COMPONENTS	Approx. Values (ohms)	Locations
L1	L.F. filter coil ...	22·0	A1
L2	Aerial coup. coil...	14·0	A1
L3	Aerial tuning coils	2·5	A1
L4		16·5	A1
L5	Oscillator tuning coils	3·0	A2
L6		6·5	A2
L7	Oscillator reaction coils (total) ...		
L8		3·0	A2
L9	1st I.F. trans. Pri.	10·0	B2
L10	1st I.F. trans. Sec.	10·0	B2
L11	2nd I.F.trans. Pri.	34·0	G4
L12	2nd I.F.trans. Sec.	34·0	G4
L13	Speech coil ...	2·5	—

(*Continued col.1 overleaf*)

Intermediate frequency 451 kc/s.





The tuning drive system, seen from the rear of the chassis with the gang at maximum capacitance.

CIRCUIT ALIGNMENT

I.F. Stages.—Switch set to M.W., turn gang and volume control to maximum, connect signal generator (via an 0.1 μF isolating capacitor in each lead) to control grid (top cap) of **V1** and chassis, feed in a 451 kc/s (665.1m) signal, and adjust **C29, C28, C27, C26** (C2, B2) for maximum output, progressively attenuating the signal generator output as the circuits are aligned, to avoid A.G.C. action.

R.F. and Oscillator Stages.—With the gang at maximum capacitance the cursors should coincide with the two black lines on the edges of each scale, at the high wavelength ends. They may be adjusted in position by sliding the cursor carriages along the drive cord. Transfer "live" signal generator lead, with series capacitor, to attached aerial connecting tag on **L1-L4** (A1).

M.W.—With set still switched to M.W., tune to 214.3m on scale, feed in a 214.3m (1,400 kc/s) signal, and adjust **C22** (A2) and **C19** (A1) for maximum output. Tune to 500m on scale, feed in a 500m (600 kc/s) signal, and adjust **C25** (B2) for maximum output.

L.W.—Switch set to L.W., tune to 1,000 m on scale, feed in a 1,000 m (300 kcs) signal, and adjust **C23** (A2) for maximum output. Tune to 1,596 m on scale, feed in a 1,596 m (188 kc/s) signal, and adjust **C24** (B2) for maximum output.

I.F. Filter.—Switch set to M.W., tune to 500 m on scale, feed in a strong 451 kc/s signal, and adjust **C18** (A1) for minimum output.