

PYE**“SLIM SIX”****Model PI28B**

General Description: Six-transistor small table receiver with ferrite-rod aerial and printed wiring panel.

Power Supply: 6 volts (U11 Baby, V0011, T15, K763).

Wavebands: M.W. 183–555 m.; L.W. one pre-set channel (1500 m.).

Transistor Analysis: Measurements taken on M.W. band with no-signal input, gang fully meshed and using Avo Model 8 (20,000 ohms/volt). Chassis positive. Diode, D1, is OA70.

<i>Transistor</i>	<i>Alternative</i>	<i>Collector, volts</i>	<i>Collector, mA.</i>	<i>Base, volts</i>	<i>Emitter, volts</i>
V1 V6/R4M . . .	OC44	2.4	0.5	0.6	0.5
V2 V6/R2 . . .	OC45	5.7	1.2	0.66	0.58
V3 V6/R2 . . .	OC45	5.7	1.05	0.90	0.73
V4 V10/50B . . .	OC71	5.5	4.0	1.0	0.85
V5 V10/50B . . .	OC72	5.95	2.0	0.2	—
V6 V10/50B . . .	OC72	5.95	2.0	0.2	—

Later models used White Circle transistors (types 1–5) with C14, C19 0.1; R12 4.7k (10%); R19 (15-ohms) is inserted between V4 emitter and top of R15.

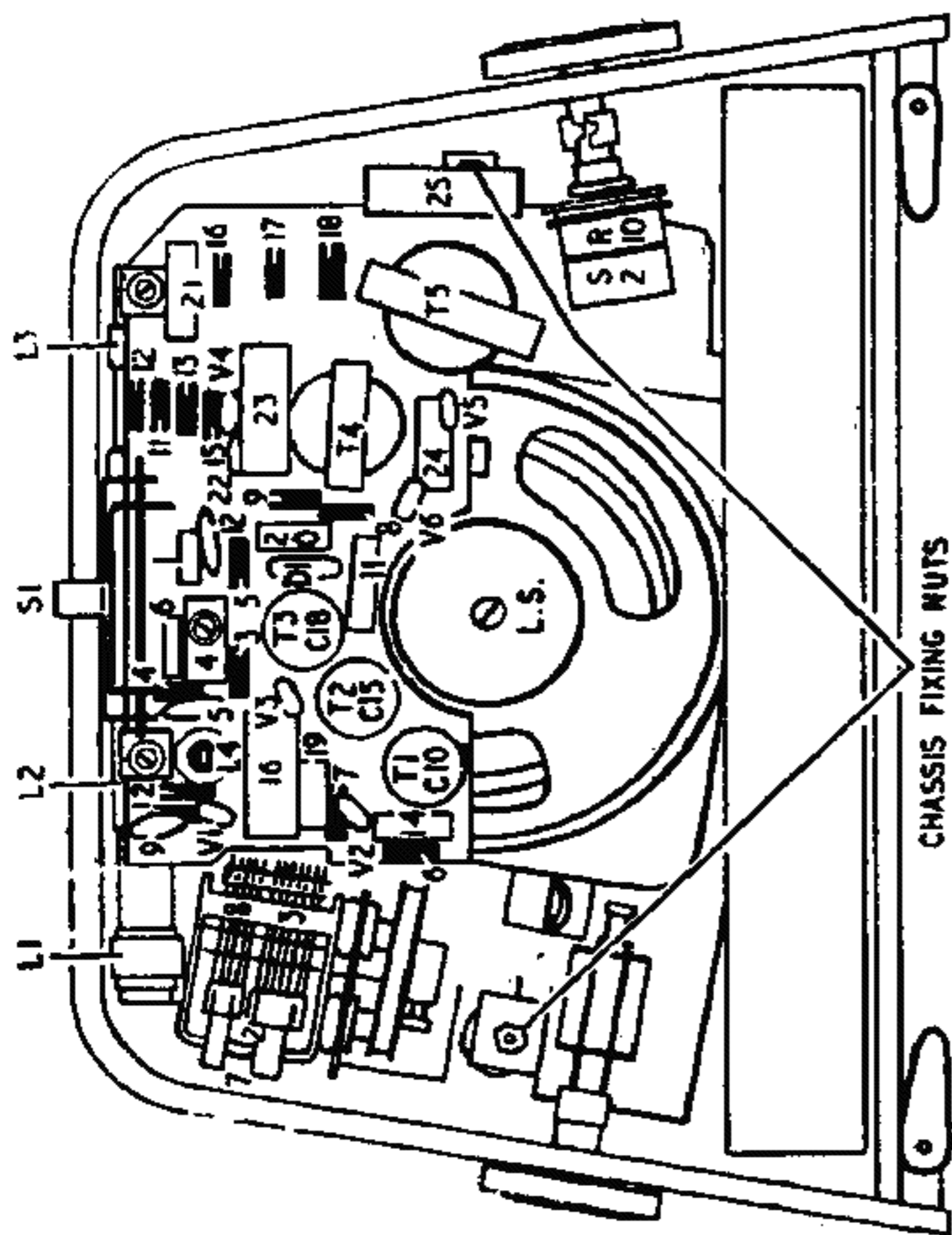
Neutralisation: The correct values of neutralising capacitor are 120 pF. for 1st I.F. amplifier and 47 pF. for the 2nd (these values should be halved if OC45 transistors are used). In extreme cases a variation of ± 20 per cent on the above values may improve stability.

Alignment Procedure:

<i>Apply Signal as Below</i>	<i>Set Controls to</i>	<i>Adjust in Order Stated</i>
(1) 470 kc/s. between chassis and C5 with S1 disconnected from C5	L.F. end of M.W.	Cores T3, T2, T1
(2) As (1) but 600 kc/s.	M.W. 500 m.	Core L4
(3) As (1) but 1500 kc/s.	M.W. 200 m.	C7
(4) Repeat (2) and (3) until calibration is correct		
(5) As (1) but 200 kc/s.	L.W.	C4
(6) 600 kc/s. to rod aerial via loop 50 cm. from centre of rod with L1 nearest loop	M.W. 500 m.	Adjust position of L1 on rod aerial
(7) As (6) but 1500 kc/s.	M.W. 200 m.	C2
(8) Repeat (6) and (7) until tracking is correct.		Seal L1 with polystyrene dope.
(9) L.W. Light Programme	L.W.	Adjust L3 on rod, afterwards sealing.*

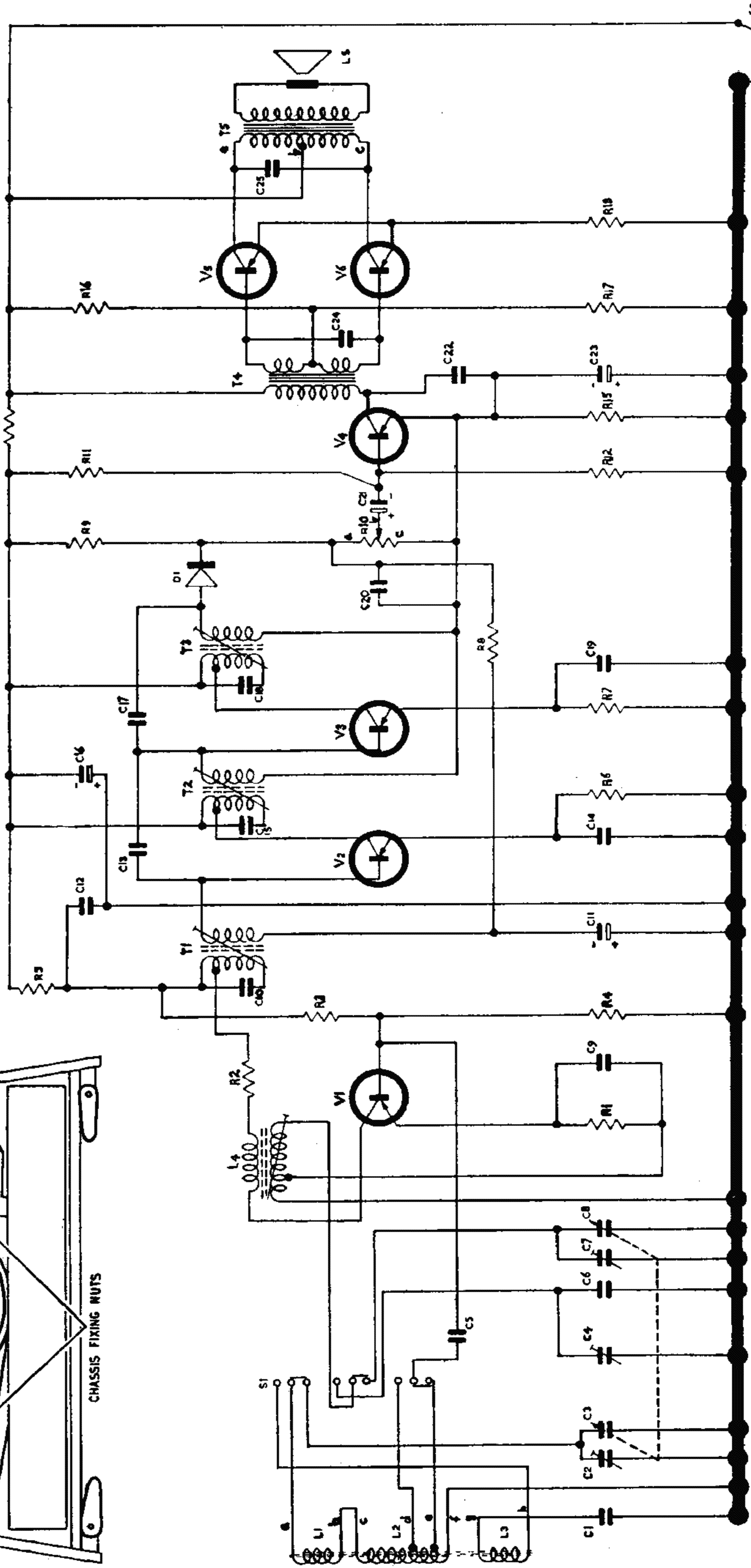
* Made using a 1-v. meter with resistance of not less than 5000 ohms connected between V2 emitter and chassis, optimum tuning being indicated by a minimum reading (about 0.1 v. on tune).

CIRCUIT AND LAY-OUT DIAGRAMS—PYE "SLIM SIX" MODEL PI28B



Capacitors.		Resistors.		D.C. Resistances (ohms).	
C1	1620 pF. (2%)	R1	1k (20%)	T1-T3 (pri.)	3.5
C2	2-20 pF.	R2	470	T4 (pri.)	121
C3	229 pF.	R3	47k	T4 (sec.)	105
C4	2-30 pF.	R4	15k	T5 (pri.)	14.93
C5	0.01	R5	6.8k		
C6	290 pF. (2%)				
C7	2-20 pF.				
C8	111 pF.				
C9	0.008				
C10	250 pF. (2%)				
C11	10 (El. 3 v.)				
C12	0.01				
C13	120 pF. (2%)				
C14	0.04				
C15	250 pF. (2%)				
C16	100 (El. 6 v.)				
C17	47 pF. (2%)				
C18	250 pF. (2%)				
C19	0.04				
C20	0.04				
C21	4 (El. 6 v.)				
C22	0.001				
C23	100 (El. 6 v.)				
C24	0.02				
C25	0.5				
R6	470 (20%)				
R7	680 (20%)				
R8	10k				
R9	68k				
R10	10k				
R11	18k				
R12	6.8k				
R13	100				
R14	220 (20%)				
R15	1.8k				
R16	(5%)				

All resistors 10% unless otherwise indicated.



WAVE CHANGE SWITCH SHOWN IN MW POSITION.