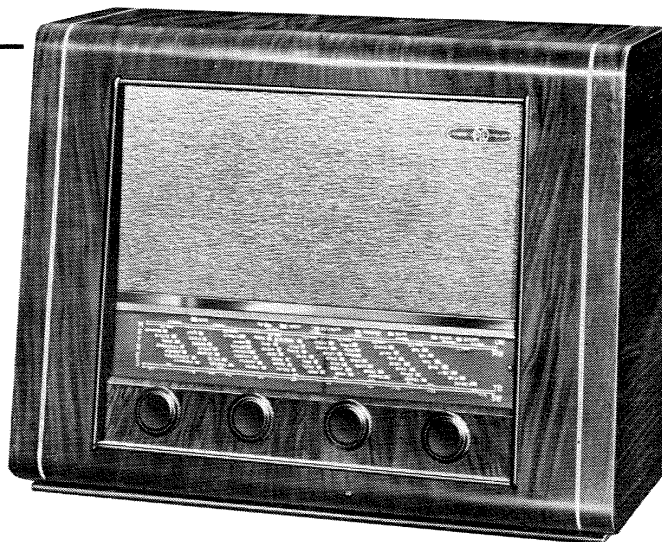


# SERVICE SHEET FOR



## model P76



FOR OPERATION OFF  
200-250 V. 40-100 CYCLES  
A.C. MAINS

Mains Consumption 40 watts.  
Unsmoothed H.T. 268 volts.

A.F. Output 2.5 watts.  
Smoothed H.T. 235 volts.

Valve	Mullard	Ea	Ia	Es	Is	Osc.		Et	Ek	Ik	
						Ea	Ia				
V1	Frequency Changer	ECH.42	235	1.8	63	3.6	95	4.3	—	—	9.7
V2	I.F. Amplifier	EF.41	235	4.0	63	1.3	—	—	—	—	5.3
V3	Det. and A.F. Amplifier	EBC.41	80	0.5	—	—	—	—	—	—	0.5
V4	Output	EL.41	254	31.5	235	3.0	—	—	—	6.3	34.5
V5	Rectifier	EZ.40	Anode to Anode 500 v. A.C.						—	268	50.0

**Note.**—All measurements taken on Medium waveband with no signal input. Gang fully meshed. Mains input 210 volts into 200-220 volt tap. Measurements taken with an Avometer Model 8 instrument. All voltages over 10 v. taken on 250 v. range. All voltages under 10 v. taken on 10 v. range.

CIRCUIT ANALYSIS

TRIMMING PROCEDURE

Apply Signal as below	Set Receiver Controls to	Adjust in order for Maximum Output
(1) 470 kc/s. between chassis and control grid of V1 via a 0.1 $\mu$ F condenser	Low frequency end of M.W. band (566 metres)	Iron dust cores of T2 and T1
(2) 214 kc/s. (1400 metres) between chassis and aerial socket via Standard Dummy Aerial	L.W. 1,400 metres	Aluminium core of L5. Iron dust core of L1
(3) As (2) but 600 kc/s. (500 metres)	M.W. 500 metres	Iron dust cores of L6 and L2
(4) As (2) but 1,500 kc/s. (200 metres)	M.W. 200 metres	Trimmers C20 and C3
(5) Repeat (3) and (4) until calibration and tracking are correct		
(6) As (2) but 1.8 Mc/s. (167 metres)	Trawler Band 167 metres	Iron dust cores of L7 and L3
(7) As (2) but 4 Mc/s. (75 metres)	Trawler Band 75 metres	Trimmer C6
(8) Repeat (6) and (7) until tracking is correct		
(9) 6.1 Mc/s. (49.2 metres) between chassis and aerial socket via a 400 ohm Dummy Aerial	S.W. 49.2 metres	Iron dust cores of L8 and L4
(10) As (9) but 17.8 Mc/s. (16.85 metres)	S.W. 16.85 metres	Trimmers C24 and C8
(11) Repeat (9) and (10) until calibration and tracking are correct		

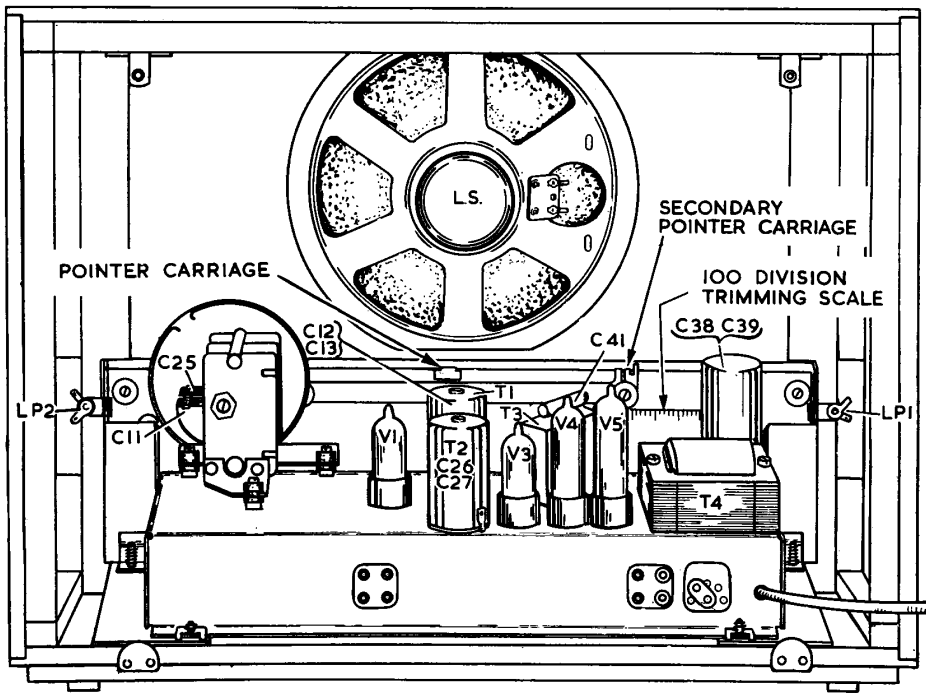
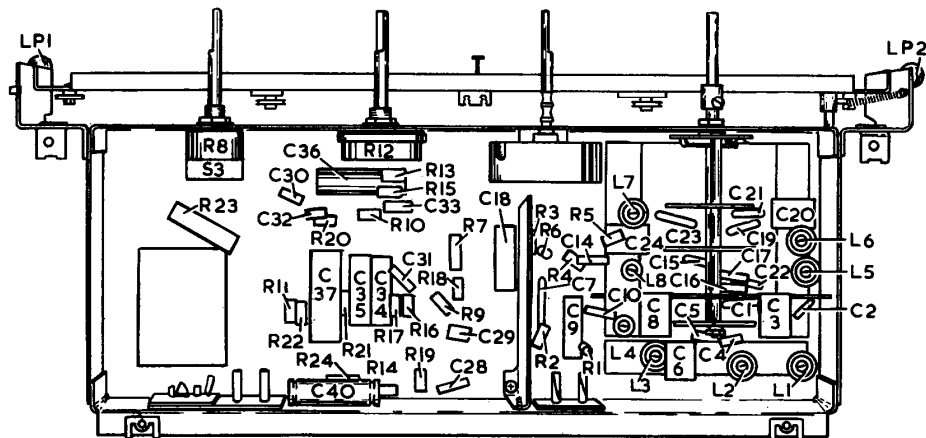


FIG. 1



CODING FOR SWITCH UNITS

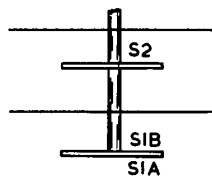
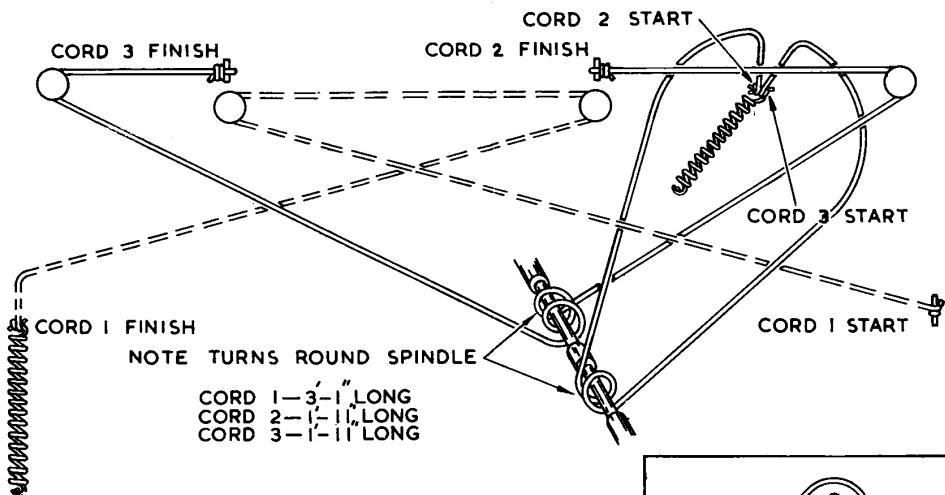
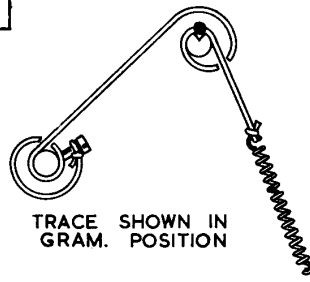
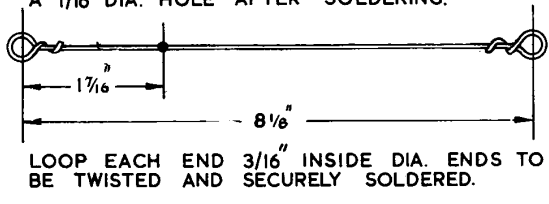


FIG. 4



TRACE TO BE KNOTTED AND SOLDERED KNOT, TO BE CAPABLE OF PASSING THROUGH A 1/16" DIA. HOLE AFTER SOLDERING.



THE INDICATOR TRACE SHOULD BE OF 7/42 SWG. STRANDED HIGH GRADE TINNED STEEL WIRE

**FIG. 2**

**Notes**

- 1 A 100 division Trimming Scale, see Fig. 1, is printed on the back of the scale reflector plate for use when trimming the receiver outside the cabinet. With the Gang fully closed, a mark should be made on the secondary pointer carriage to line up with O division; this will serve as an index for the scale.  
 A Calibration Chart is printed on page 2.  
 When no accurate frequency standard is available the receiver should be calibrated against a reliable broadcasting station operating on a wavelength close to that specified in the Trimming Procedure.  
 After the alignment has been carried out and the chassis refitted in the cabinet, the pointer should be lined up with the spots to be found at the right-hand end of the tracks of the tuning scale.
- 2 External Speaker 2-4 ohms impedance.
- 3 Dial Bulbs 6.5 volt 0.3 amp.
- 4 Make sure Mains Voltage Adjuster is in correct position to ensure (a) maximum valve and component life, and (b) full benefit of the Pye "FIDELITY" reproduction.

**TO REMOVE CHASSIS**

- 1 Remove back of set.
- 2 Pull off knobs.
- 3 Pull out Loudspeaker Plugs.
- 4 Remove the four Chassis Fixing Screws from underside of cabinet.
- 5 Withdraw chassis approximately 2 inches, turn sideways and remove from cabinet, taking care not to damage the dial bulbs.

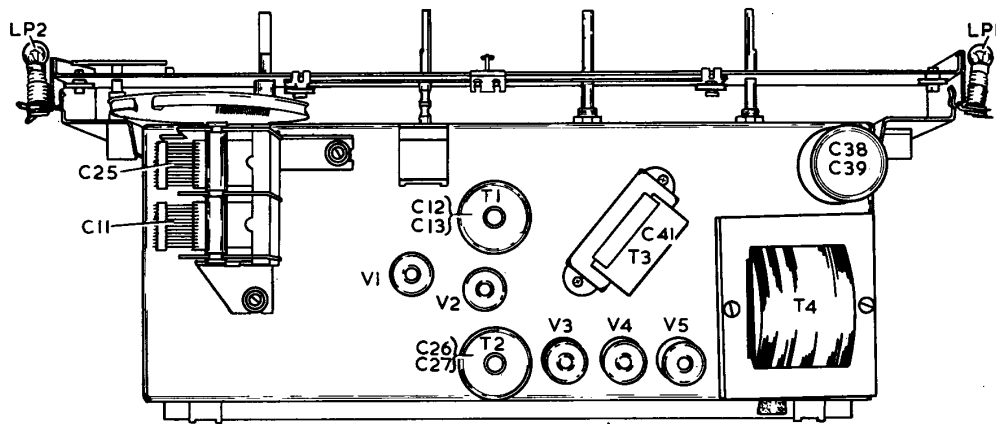
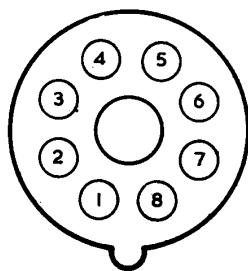


FIG. 3

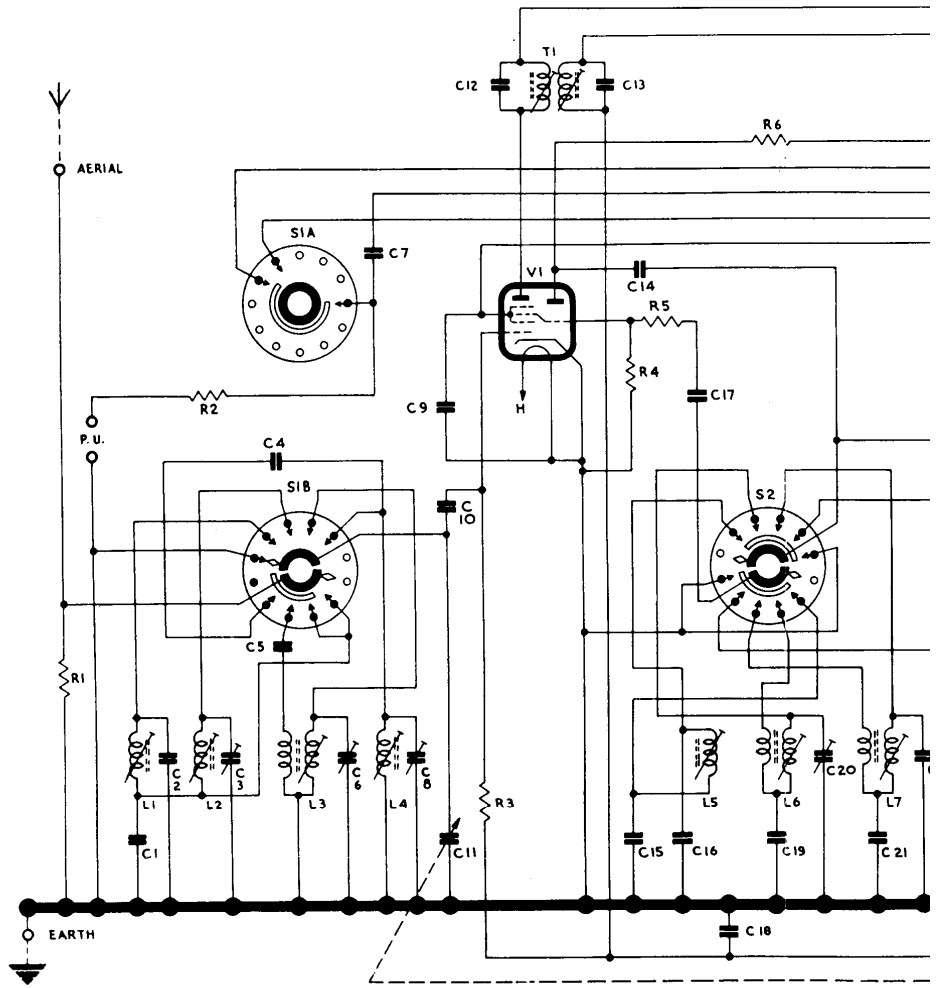
### VALVE BASE CONNECTIONS

	1	2	3	4	5	6	7	8
V1	H	AH	AT	G3 GT	G2 G4	G1	K	H
V2	H	A	K G3 S	K G3 S	G2	G1	K G3 S	H
V3	H	A	G	S	D1	D2	K	H
V4	H	A	K G3	—	G2	G1	K G3	H
V5	H	A1	—	—	—	A2	K	H

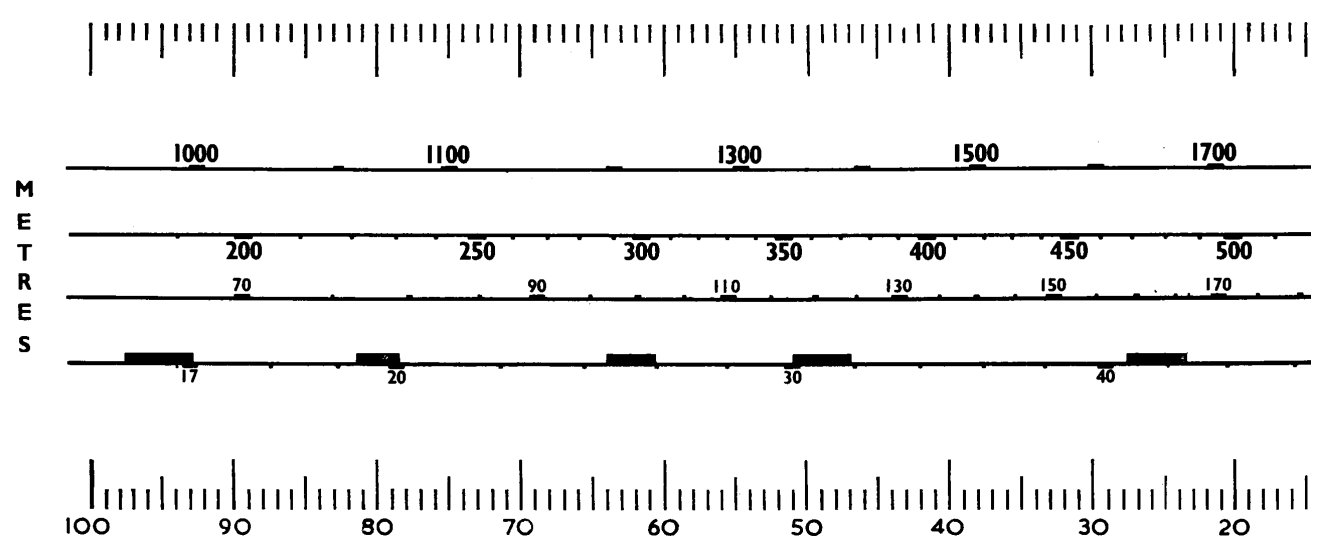


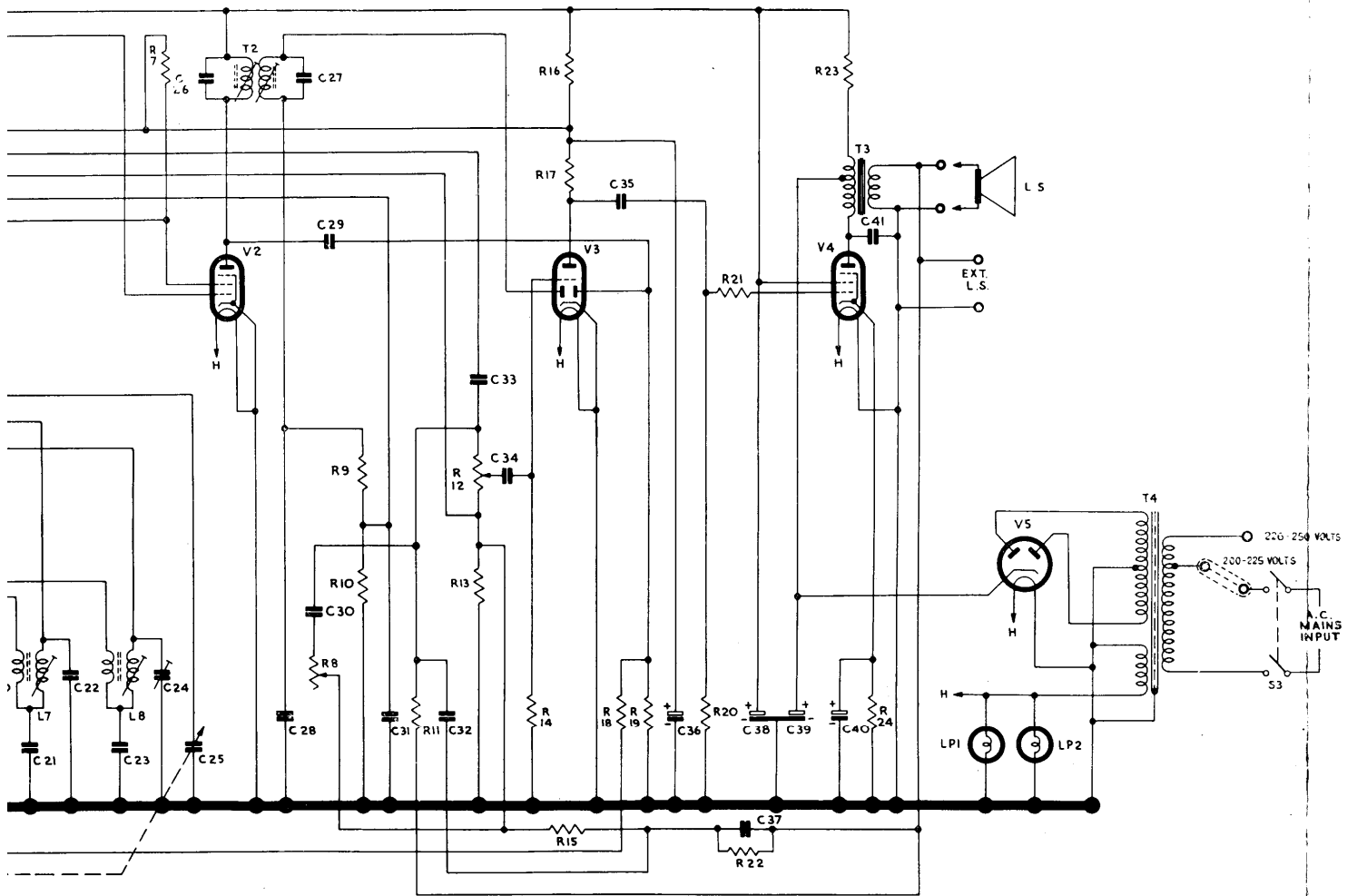
VIEW LOOKING AT PINS

FIG. 5

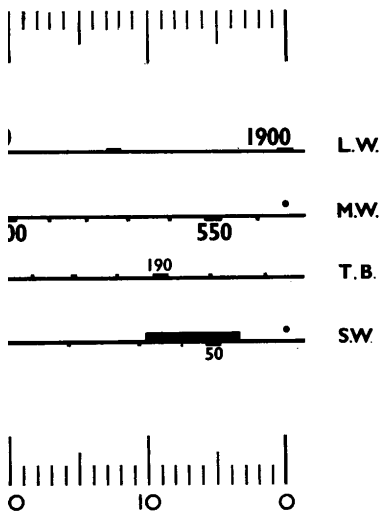


NOTE: WAVECHANGE SWITCH VIEWED





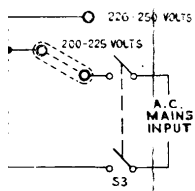
VIEWS FROM FRONT & SHOWN IN FULLY ANTI-CLOCKWISE POSITION I.E. 'GRAM' POSITION



### SWITCHES, LAMPS, ETC.

	Specification	Fig.	No.		
S1A	Rear Bank 2	4	083006	L1	L.W. Aerial C
S1B	Front Bank 2			L2	M.W. Aerial C
S2	Front Bank 1			L3	T.B. Aerial C
S3	ON/OFF Switch on Tone Control	4	810252	L4	S.W. Aerial C
LP1	Dial Bulb 6.5 volt 0.3 amp.	1, 3 & 4	700494	L5	L.W. Osc. Co
LP2	Dial Bulb 6.5 volt 0.3 amp.	1, 3 & 4	700494	L6	M.W. Osc. Co
LS	Loudspeaker	1	850099	L7	T.B. Osc. Co
				L8	S.W. Osc. Co

# CIRCUIT DIAG and CALIBRATION CI PYE MODEL



### INDUCTANCES

	Specification	Ref.	Fig.	No.
L1	L.W. Aerial Coil	L.W.11	4	780603
L2	M.W. Aerial Coil	M.W.15	4	780604
L3	T.B. Aerial Coil	T.B.4	4	780605
L4	S.W. Aerial Coil	S.W.4	4	780278
L5	L.W. Osc. Coil	L.W.9	4	780337
L6	M.W. Osc. Coil	M.W.21	4	780645
L7	T.B. Osc. Coil	T.B.1	4	780249
L8	S.W. Osc. Coil	S.W.24	4	781183

### CONDENSERS

	Specification	Volts	±	Fig.	No.
C1	2,400 pF Mica		5%	4	666794
C2	120 pF Mica		2%	4	664108
C3	3-50 pF Trimmer			4	800076
C4	5-6 pF Ceramic		20%	4	666659
C5	100 pF Ceramic		20%	4	666806
C6	3-50 pF Trimmer			4	800076
C7	470 pF Mica		20%	4	665730
C8	3-50 pF Trimmer			4	800076
C9	0-05 μF Tubular	350		4	668599
C10	100 pF Ceramic		20%	4	666806
C11	528 pF Swing Gang Condenser			1 & 3	800032
C12*	100 pF Mica		2%	1 & 3	666776
C13*	100 pF Mica		2%	1 & 3	666776
C14	100 pF Ceramic		20%	4	666806
C15	160 pF Mica		2%	4	664140
C16	160 pF Mica		2%	4	664140
C17	100 pF Ceramic		20%	4	666806
C18	0-05 μF Tubular	350		4	668599
C19	360 pF Mica		2%	4	664222
C20	3-50 pF Trimmer			4	800076
C21	1,700 pF Mica		5%	4	666795
C22	27 pF Mica		2%	4	664000
C23	5,600 pF Mica		5%	4	663435
C24	3-50 pF Trimmer			4	800076
C25	528 pF Swing Gang Condenser			1 & 3	800032
C26*	100 pF Mica		2%	1 & 3	666776
C27*	100 pF Mica		2%	1 & 3	666776
C28	100 pF Ceramic		20%	4	666806
C29	47 pF Mica		20%	4	665676
C30	0-002 μF Tubular	350		4	669216
C31	100 pF Ceramic		20%	4	666806
C32	47 pF Ceramic		20%	4	669219
C33	0-01 μF Tubular	350		4	668599
C34	0-05 μF Tubular	350		4	668599
C35	0-05 μF Tubular	350		4	668599
C36	2 μF Electrolytic	350		4	667433
C37	0-25 μF Tubular	350		4	668609
C38	32 μF + Electrolytic	350		1 & 3	667504
C39	32 μF + Electrolytic	350		1 & 3	667171
C40	50 μF Electrolytic	12		4	667171
C41	0-005 μF Tubular	1,000		1 & 3	668870

Note.—\* Integral part of I.F. Transformer.

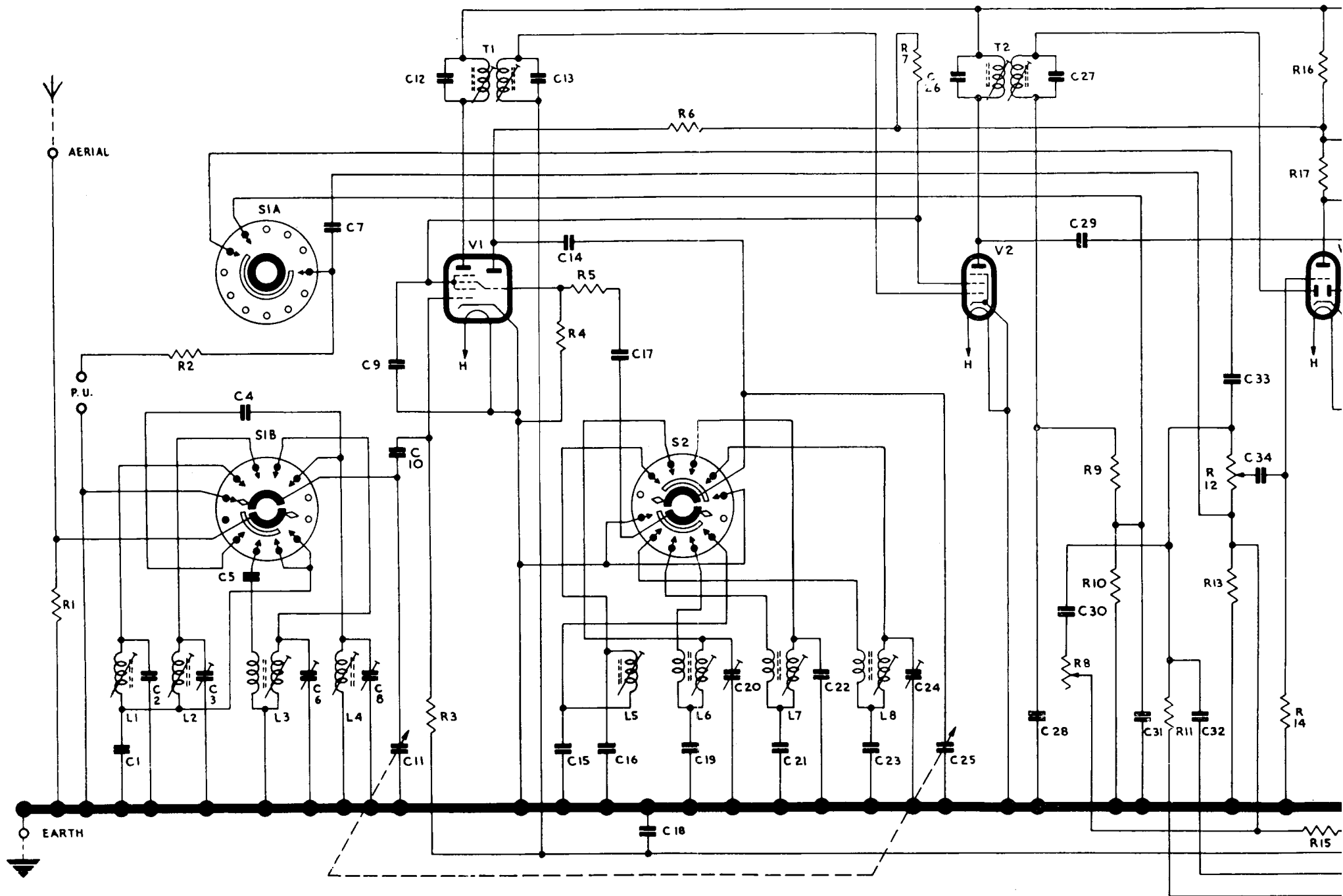
### RESISTORS

	Ohms	Watts	±	Fig.	No.
R1	22,000	$\frac{1}{4}$	20%	4	670400
R2	150,000	$\frac{1}{4}$	20%	4	670405
R3	1 meg.	$\frac{1}{4}$	20%	4	670410
R4	47,000	$\frac{1}{4}$	20%	4	670402
R5	150	$\frac{1}{4}$	10%	4	670508
R6	22,000	$\frac{1}{4}$	20%	4	670400
R7	27,000	$\frac{1}{4}$	10%	4	670459
R8	meg. Tone Control			4	810252
R9	220,000	$\frac{1}{4}$	20%	4	670406
R10	220,000	$\frac{1}{4}$	20%	4	670406
R11	4-7 meg. Volume Control	$\frac{1}{4}$	20%	4	670414
R12	1 meg. Volume Control	$\frac{1}{4}$	20%	4	810241
R13	270	$\frac{1}{4}$	10%	4	670511
R14	10 meg.	$\frac{1}{4}$	20%	4	670416
R15	1,500	$\frac{1}{4}$	20%	4	670393
R16	4,700	$\frac{1}{4}$	20%	4	670396
R17	220,000	$\frac{1}{4}$	20%	4	670406
R18	1 meg.	$\frac{1}{4}$	20%	4	670410
R19	1 meg.	$\frac{1}{4}$	20%	4	670410
R20	470,000	$\frac{1}{4}$	20%	4	670408
R21	10,000	$\frac{1}{4}$	20%	4	670398
R22	15,000	$\frac{1}{4}$	20%	4	670399
R23	1,600	$\frac{1}{4}$	5%	4	671836
R24	180	$\frac{1}{4}$	10%	4	670509

### TRANSFORMERS

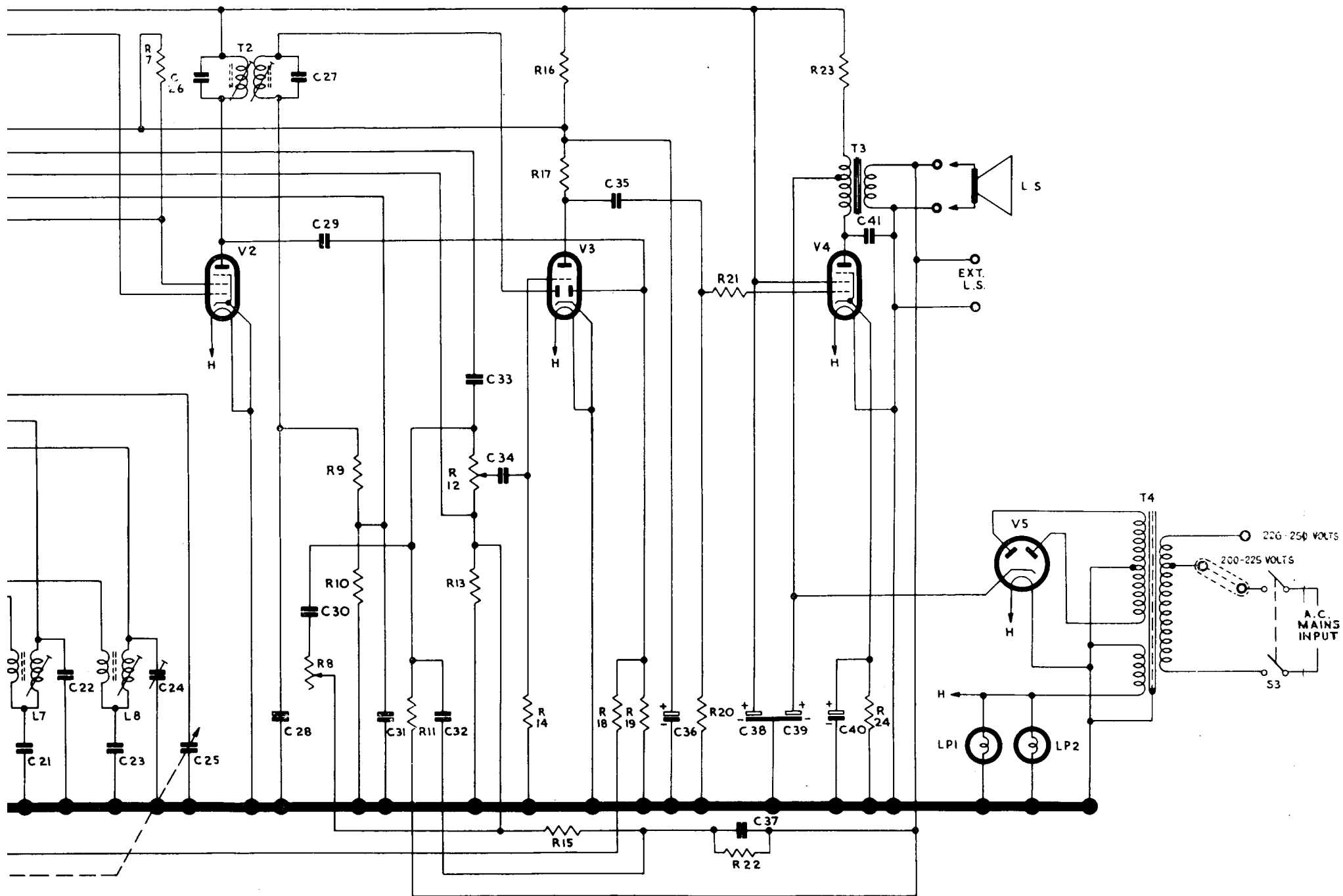
	Specification	Fig.	No.
T1	1st I.F. Trans. { Prim. 12-2 Ω Sec. 12-2 Ω }	1 & 3	770369/A
T2	2nd I.F. Trans. { Prim. 12-2 Ω Sec. 12-2 Ω }	1 & 3	770369/A
T3	Output Trans. { Prim. Start to Tap 485 Ω Prim. Start to Finish 500 Ω Sec. — }	1 & 3	770415
T4	Mains Trans. { Prim. 32 Ω on 250 v. Tap Sec. 260 Ω + 270 Ω }	1 & 3	077002

# DIAGRAM AND CHART of the DEL P76



NOTE: WAVECHANGE SWITCH VIEWED FROM FRONT & SHOWN IN FULLY ANTI-CLOCKWISE POSITION I.E. 2° GR





VIEWED FROM FRONT & SHOWN IN FULLY ANTI-CLOCKWISE POSITION I.E. 'GRAM' POSITION