

# SERVICE SHEET FOR



## model PZ101 *& PZ45 + PZ88*

FOR OPERATION OFF  
230 VOLT A.C. MAINS

		Mains Consumption 37 watts.			A.F. Output 2.2 watts.					
Valve	Mullard	Ea	Ia	Es	Is	Osc.		Ek	Ik	
						Ea	Ia			
V1	Frequency Changer	ECH.42	190	2.5	62	4.4	90	3.0	1.9	9.9
V2	I.F. Amplifier	EF.41	190	4.2	62	1.7	—	—	—	5.9
V3	Det. and A.F. Amplifier	EBC.41	62	0.6	—	—	—	—	—	0.6
V4	Output	EL.41	210	27.5	190	3.5	—	—	4.6	31
V5	Rectifier	EZ.40	Anode to Anode 420 v. A.C.						215	47.4

Note.—All measurements taken with no signal input. Gang fully meshed.  
Mains input 230 volts. Measurements taken with an Avometer Model 8 instrument which has a resistance of 20,000 ohms per volt.

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 0.1 $\mu$ F condenser	Gang fully meshed	Iron dust cores of I.F. Transformers T2 and T1
(2) 600 kc/s. between Aerial and Earth Sockets via standard Dummy Aerial	600 kc/s.	Iron dust cores of L9 and L1
(3) As (2) but 1500 kc/s. (200 m.)	1500 kc/s.	Trimmers C16 and C2
(4) Repeat (2) and (3) above until calibration and tracking are correct.		

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FIG. 1

FIG. 2

### VALVE BASE CONNECTIONS

	1	2	3	4	5	6	7	8	9
V1	H	AH	AT	G <sup>3</sup> G <sup>4</sup> T	G <sup>2</sup> G <sup>4</sup>	G1	K	H	—
V2	H	A	K	K	G2	G1	K	H	—
V3	H	A	G1	—	D1	D2	K	H	—
V4	H	A1	K	—	G2	G1	K	H	—
V5	H	A1	—	—	—	A2	K	H	—
V6	G	KG1	—	H	H	—	AD	—	T

VALVE BASE FOR V1, V2, V3, V4, V5      VALVE BASE FOR V6

FIG. 3

FIG. 4

THE DRIVE CORD SHOULD BE OF NYLON BRAIDED GLASS YARN. LENGTH  $3\frac{1}{2}$  BETWEEN CENTRES OF LOOPS

START AND FINISH HERE

NOTE THE TURNS ROUND THE SPINDLE

DRIVE CORD VIEWED FROM REAR OF CHASSIS WITH GANG FULLY CLOSED

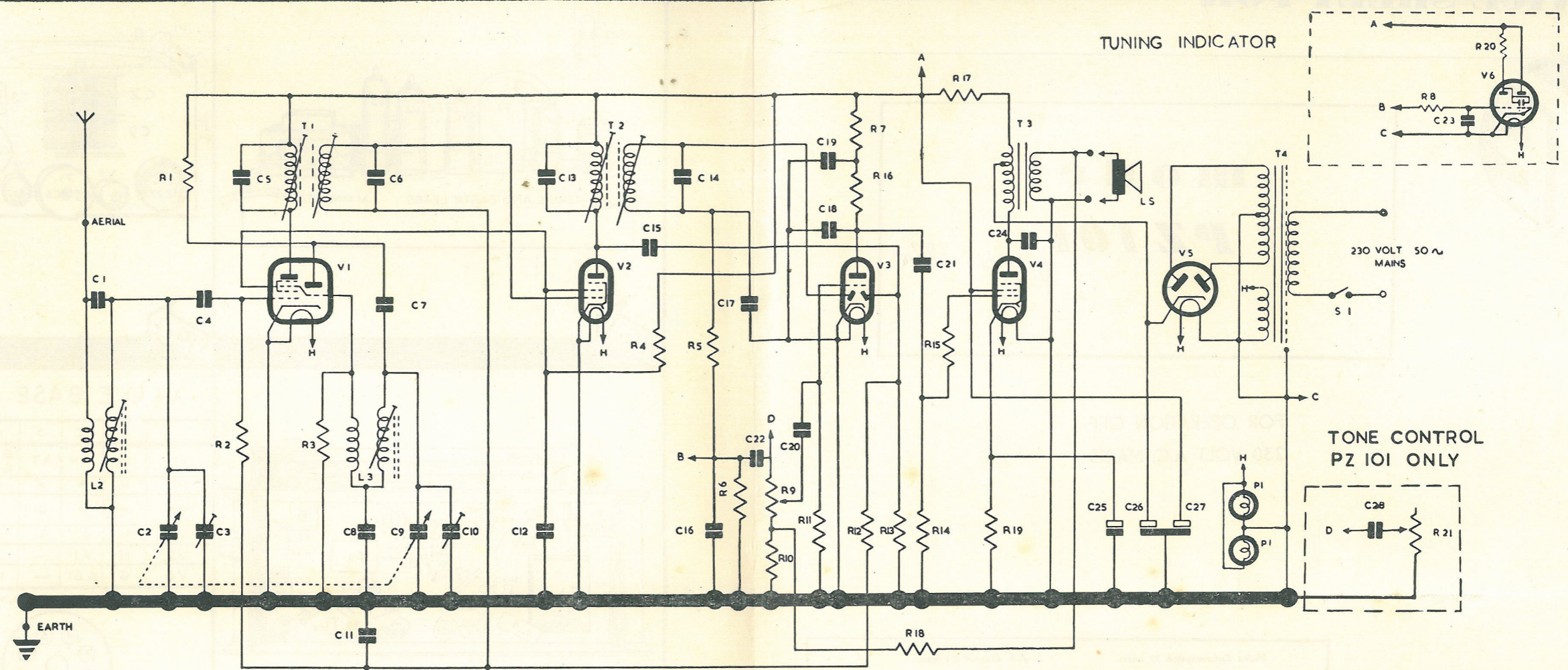
FIG. 5

### Notes

- TO REMOVE CHASSIS.
  - Remove Card Back.
  - Pull off knobs.
  - Remove chassis fixing screws from bottom of cabinet.
  - Withdraw chassis.
- TO REPLACE DIAL LAMPS.
 

Remove the card back. The dial lamp holders which are clipped in position, one at each end of the tuning scale reflector, should be removed and brought clear of the chassis. The faulty lamp can then be replaced with a 6.5 volt 0.3 amp bulb
- FITTING A NEW TUNING SCALE.
  - Remove chassis.
  - Place scale plate in cabinet aperture and screw clips tightly in position, first making sure that the scale is square with the cabinet aperture.
  - Re-fit chassis in cabinet.
  - Adjust tuning knob to bring gang condenser to maximum position (fully meshed) and line up the pointer to the spot to be found at the right-hand end of scale

PZ101



circuit diagram of the



**MODEL  
PZ 101**

CONDENSERS				RESISTORS				INDUCTANCES		
Ref. No.	Specification	Volts	Ref. No.	Ohms	Watts	Ref. No.	Specification	Ref.	No.	
C1	51 pF Silver Mica		664700	R1	33,000	1	NOT USED			
C2	540 pF Gang Condenser			R2	1.2 meg	1/4	M.W. Aerial coil	MW7A	780257	
C3	3-30 pF Trimmer			R3	47,000	1/4	M.W. Oscillator coil		780256	
C4	100 pF Silver Mica	2%	664101	R4	33,000	1	Loudspeaker		850019	
C5	100 pF Mica	2%	666776	R5	47,000	1/4				
C6	100 pF Mica	2%	666776	R6	220,000	1/4				
C7	100 pF Silver Mica	2%	664101	R7	100,000	1/4				
C8	5.0 pF Silver Mica	2%	664263	R8	2.2 meg	1/4				
C9	540 pF Gang Condenser			R9	100,000 potentiometer	1/4				
C10	3-30 pF Trimmer			R10	47	20%				
C11	0.05 μF Tubular	350	668599	R11	6.8 meg	20%				
C12	0.05 μF Tubular	500	668574	R12	1.2 meg	10%				
C13	100 pF Mica	2%	666776	R13	1.2 meg	10%				
C14	100 pF Mica	2%	666776	R14	220,000	10%				
C15	10 pF Silver Mica	5%	664700	R15	10,000	20%				
C16	100 pF Silver Mica		664101	R16	220,000	10%				
C17	100 pF Silver Mica	2%	664101	R17	1,500	1				
C18	100 pF Silver Mica	2%	664101	R18	470	1/4				
C19	0.05 μF Tubular	500	668574	R19	150	20%				
C20	0.01 μF Disc Ceramic	500	667171	R20	1.2 meg	1/4				
C21	0.01 μF Disc Ceramic	500		R21	1.0 meg potentiometer	1/4				
C22	0.01 μF Disc Ceramic	500								
C23	0.01 μF Disc Ceramic	500								
C24	0.01 μF Disc Ceramic	500								
C25	50 μF	12								
C26	40 μF	350								
C27	40 μF	350								
C28	0.005 μF Disc Ceramic	500								

TRANSFORMERS			
Ref. No.	Specification	Ref.	No.
T1	1st. I.F. Trans. { Prim. res. 12Ω Sec. res. 12Ω }		770369
T2	2nd I.F. Trans. { Prim. res. 12Ω Sec. res. 12Ω }		770369
T3	Output Trans. { Prim. res. 450Ω Sec. res. 160+170Ω }		770397
T4	Mains Trans.		770807

VALVES			
Ref. No.	Specification	Ref.	No.
V1	ECH42		
V2	EF41		
V3	EBC41		
V4	EL41		
V5	EZ40		
V6	EM.34		

SWITCHES, LAMPS, ETC.			
Ref. No.	Specification	Ref.	No.
S1	Mains on/off switch on Volume Control		
P1	Dial Lamp 6-8V 0.3 amp	8045D	

NOTE:  
\* = Part of I.F. transformer.