

# SERVICE SHEET FOR

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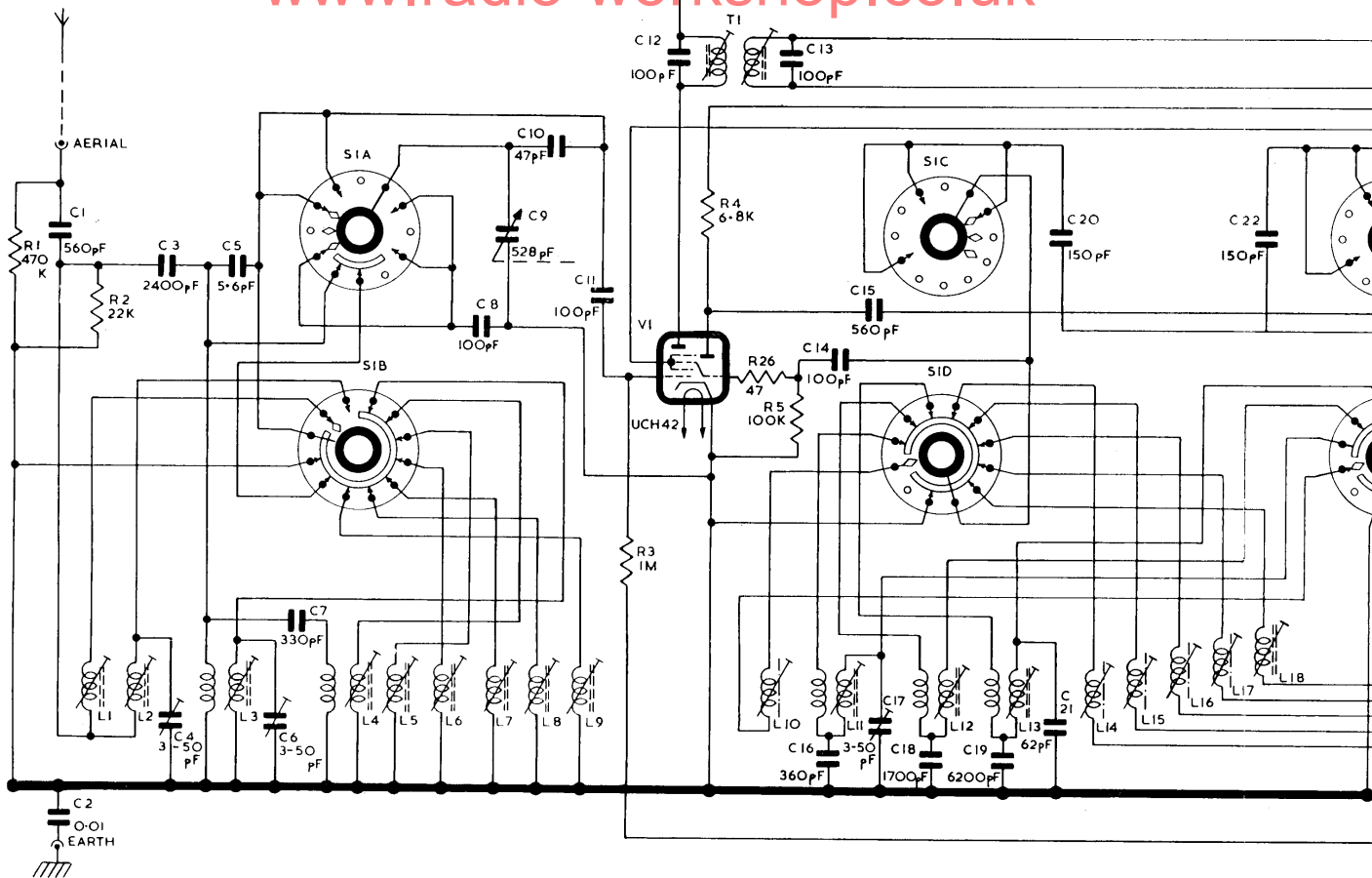


## models 1101 (Home) and 3017 (Export)

CIRCUIT ANALYSIS

		Mains Consumption		A.F. Output			1.5 watts.				
		Unsmoothed H.T.		Smoothed H.T.			140 volts.				
		50 watts.		165 volts.							
Valve	Mullard	Ea	Ia	Es	Is	Osc.		Ek	Ik		
						Ea	Ia				
V1	Frequency Changer	UCH.42	140	1.7	62	3.7	112	3.0	—	8.4	
V2	I.F. Amplifier	UF.41	140	5.4	62	1.6	—	—	—	7.0	
V3	Det. and A.F. Amplifier	UBC.41	66	0.3	—	—	—	—	—	0.3	
V4	Output	UL.41	150	36.0	140	6.8	—	—	7.7	42.8	
V5	Rectifier	UY.41	190 v. A.C. on Anode					—	—	165	58.5
<p><b>Note.</b>—All measurements taken on M.W. band with gang fully meshed. No signal input. Mains input 210 V.A.C. into 200-220 volts 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.</p>											
<p><b>Note.</b>—Calibration of bandspread circuits should preferably be checked against broadcasting stations of known frequency. The calibration of most normal signal generators is not sufficiently accurate for this purpose.</p>											
Apply signal as below		Set Receiver Controls to			Adjust in order for Maximum Output						
(1) 470 kc/s between control grid of V1 and chassis via a 0.1 $\mu$ F condenser		Low frequency end of medium waveband (565 metres)*			Iron dust cores of I.F. Transformers T2 and T1						
(2) 214 kc/s between Aerial and Earth sockets via Standard Dummy Aerial		L.W. 1400 metres			Aluminium slug of LW10 and iron dust core of L1						
(3) As (2) but 600 kc/s (500 m.)		M.W. 500 m.			Iron dust cores of L11 and L2						
(4) As (2) but 1500 kc/s (200 m.)		M.W. 200 m.			Trimmers C17 and C4						
(5) Repeat (3) and (4) above until calibration and tracking are correct.											
(6) As (2) but 1500 kc/s (200 m.)		S1 band 200 m.			Iron dust cores of L12 and L3						
(7) As (2) but 3.3 Mc/s.		S1 band 90.9 m.			Trimmer C6						
(8) Repeat adjustments of L3 and C6 until tracking is correct.											
(9) 7.2 Mc/s between Aerial and Earth sockets via a 400 ohm resistor.		S2 band 41.7 m.			Iron dust cores of L13 and L4						
(10) As (9) but 9.6 Mc/s.		31 m. band 9.6 Mc/s.			Cores of L14 and L5						
(11) As (9) but 11.8 Mc/s.		25 m. band 11.8 Mc/s.			Cores of L15 and L6						
(12) As (9) but 15.3 Mc/s.		19 m. band 15.3 Mc/s.			Cores of L16 and L7						
(13) As (9) but 17.8 Mc/s.		16 m. band 17.8 Mc/s.			Cores of L17 and L8						
(14) As (9) but 21.6 Mc/s.		13 m. band 21.6 Mc/s.			Cores of L18 and L9						
* Pointer should be aligned with extreme end of calibration tracks.											

TRIMMING PROCEDURE



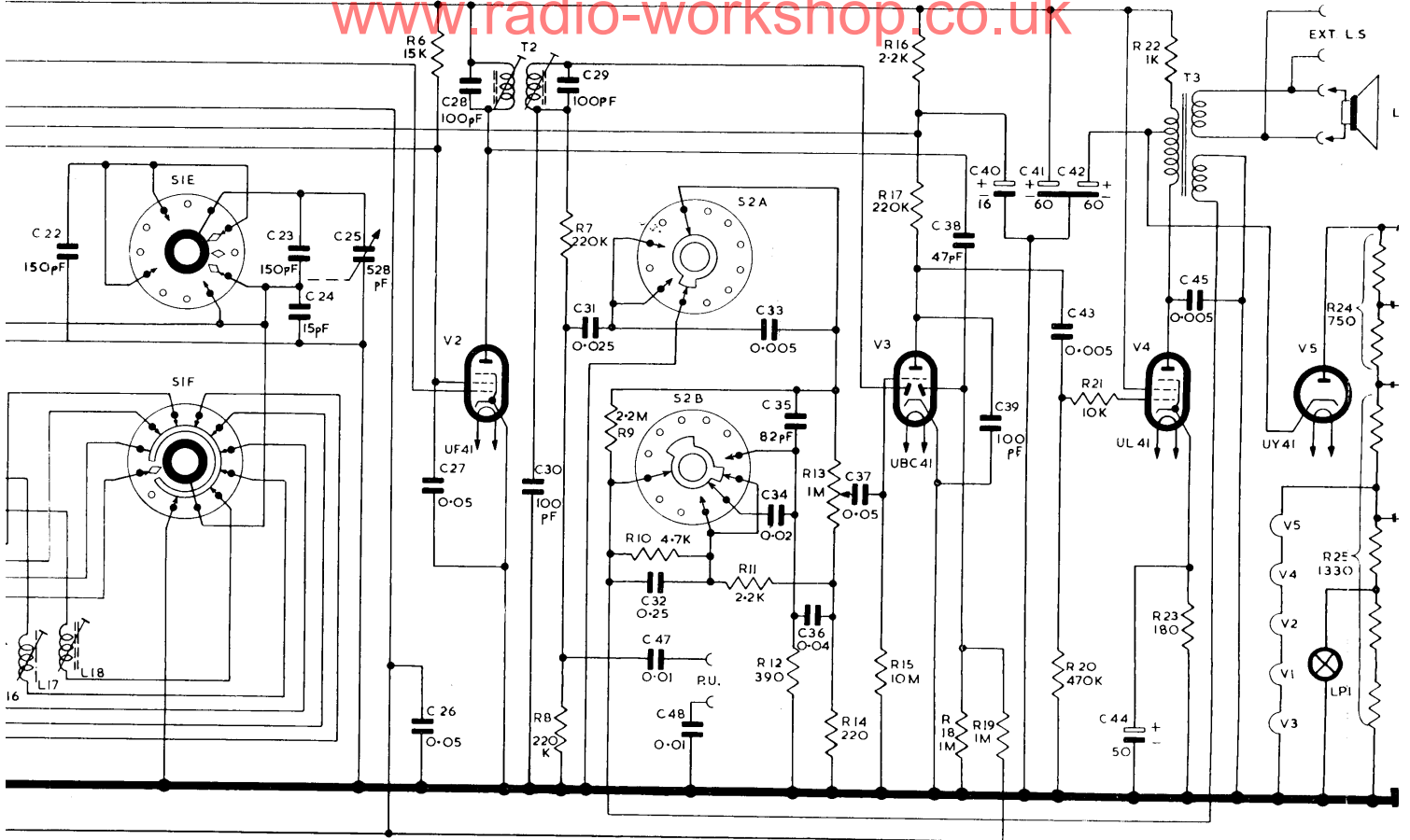
NOTE - ALL SWITCHES SHOWN IN FULLY ANTI-CLOCKWISE POSITION, IE WAVECHANGE SWITCH S1  
 ALL RESISTORS IN OHMS UNLESS OTHERWISE STATED  
 ALL CAPACITORS IN  $\mu$ F UNLESS OTHERWISE STATED

*circuit diagram*  
*of the*  
**PYE**  
**MODELS**  
*1101 and*  
**3017**

MISCELLANEOUS

Cabinet Assembly .. .. .	AG 00001
Knob Assembly—Tuning, Volume and Wavechange ..	AG 00002
Knob Assembly—Tone .. .. .	AG 00003
Mains Lead Assembly .. .. .	733439
Knob Fixing Ring .. .. .	030168
Wavechange Indicator Assembly .. .. .	AG 00004
Pointer Assembly .. .. .	AG 00005
Voltage Selector Plug Assembly .. .. .	730326
Drive Drum Assembly .. .. .	FD 00001
Drive Spindle .. .. .	310951
Scale Backplate .. .. .	BJ 00013
Lampholder .. .. .	720477
Scale; Tuning .. .. .	EA 00001
Scale Bracket .. .. .	BC 00001
Pye Motif .. .. .	BJ 00001
Pye Motif Escutcheon .. .. .	071493
Pye Motif Backing .. .. .	071836
Quick Release Runner Assembly .. .. .	073239
Wavechange Switch Unit—completely assembled and wired .. .. .	084246

C1	560 pF Cerami
C2	0.01 $\mu$ F Tubul:
C3	2,400 pF Mica
C4	3-50 pF Trimm
C5	5.6 pF Cerami
C6	3-50 pF Trimm
C7	330 pF Cerami
C8	100 pF Mica ..
C9	528 pF Swing
C10	47 pF Mica ..
C11	100 pF Cerami
C12*	100 pF Mica ..
C13*	100 pF Mica ..
C14	100 pF Cerami
C15	560 pF Cerami
C16	360 pF Mica ..
C17	3-50 pF Trimm
C18	1,700 pF Mica
C19	6,200 pF Mica
C20	150 pF Mica ..
C21	62 pF Mica ..
C22	150 pF Mica ..
C23	150 pF Mica ..
C24	15 pF Cerami
C25	528 pF Swing
C26	0.05 $\mu$ F Tubul:
C27	0.05 $\mu$ F Tubul:
C28*	100 pF Mica ..
C29*	100 pF Mica ..
C30	100 pF Cerami
C31	0.025 $\mu$ F Tubu
C32	0.25 $\mu$ F Tubu
C33	0.005 $\mu$ F Tubu
C34	0.02 $\mu$ F Tubul:
C35	82 pF Cerami



CHANGE SWITCH S1 IN 'LW' POSITION, AND TONE SWITCH S2 IN 'OF' POSITION

**CONDENSERS**

	Specification	Volts	±	Fig.	No.
C1	560 pF Ceramic	300 V.A.C.	20%	4	666863
C2	0.01 μF Tubular				669135
C3	2,400 pF Mica	5%	4	4	666794
C4	3-50 pF Trimmer				800076
C5	5-6 pF Ceramic	20%	4	4	666659
C6	3-50 pF Trimmer				800076
C7	330 pF Ceramic	20%	4	4	666809
C8	100 pF Mica				664100
C9	528 pF Swing Gang Condenser	2%	4	4	664130
C10	47 pF Mica				664048
C11	100 pF Ceramic	20%	4	4	666806
C12*	100 pF Mica				666776
C13*	100 pF Mica	2%	3	3	666776
C14	100 pF Ceramic				666806
C15	560 pF Ceramic	20%	4	4	666863
C16	360 pF Mica				664222
C17	3-50 pF Trimmer	2%	4	4	800076
C18	1,700 pF Mica				666795
C19	6,200 pF Mica	5%	4	4	666723
C20	150 pF Mica				664130
C21	62 pF Mica	2%	4	4	664072
C22	150 pF Mica				664130
C23	150 pF Mica	2%	4	4	664130
C24	15 pF Ceramic N750K				666515
C25	528 pF Swing Gang Condenser	10%	4	4	PV 01000
C26	0.05 μF Tubular				669116
C27	0.05 μF Tubular	250	4	4	668966
C28*	100 pF Mica				666776
C29*	100 pF Mica	350	2%	4	666776
C30	100 pF Ceramic				666806
C31	0.025 μF Tubular	350	4	4	669386
C32	0.25 μF Tubular				666809
C33	0.005 μF Tubular	150	4	4	669081
C34	0.02 μF Tubular				669105
C35	82 pF Ceramic	150	20%	4	666823

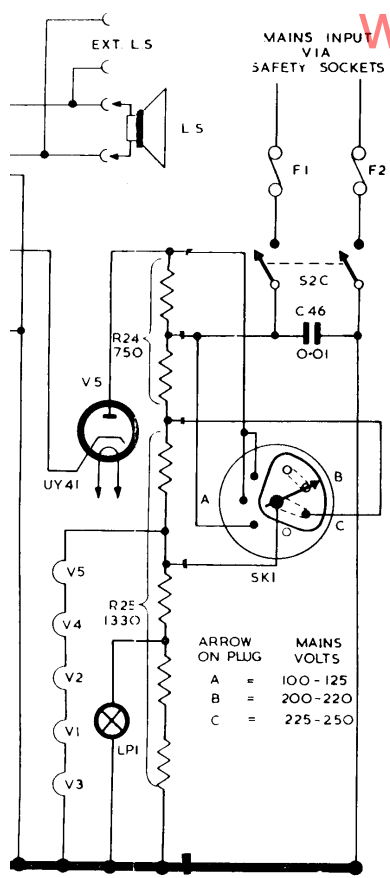
**CONDENSERS, Contd.**

	Specification	Volts	±	Fig.	No.
C36	0.04 μF Tubular	150		4	669106
C37	0.05 μF Tubular	250		4	669116
C38	47 pF Ceramic	150	20%	4	665676
C39	100 pF Ceramic				666806
C40	16 μF Electrolytic	350	20%	3	667537
C41	60 μF Electrolytic				667503
C42	60 μF Electrolytic	350	3	3	667503
C43	0.005 μF Tubular				669095
C44	50 μF Electrolytic	12	4	4	667171
C45	0.005 μF Tubular				668870
C46	0.01 μF Tubular	1000	1 & 3	4	668870
C47	0.01 μF Tubular				669135
C48	0.01 μF Tubular	300 A.C.		4	669135

**INDUCTANCES**

	Specification	Ref.	Fig.	No.
L1	L.W. Aerial Coil	L.W.10	4	780571
L2	M.W. Aerial Coil	M.W.15	4	780604
L3	S.1 Aerial Coil	T.B.4	4	780605
L4	S.2 Aerial Coil	S.W.16	4	780622
L5	31 m. Aerial Coil	S.W.7	4	780275
L6	25 m. Aerial Coil	S.W.6	4	780276
L7	19 m. Aerial Coil	S.W.5	4	780277
L8	16 m. Aerial Coil	S.W.4	4	780278
L9	13 m. Aerial Coil	S.W.3	4	780272
L10	L.W. Osc. Coil	L.W.9	4	780337
L11	M.W. Osc. Coil	M.W.1	4	780234
L12	S.1 Osc. Coil	T.B.1	4	780249
L13	S.2 Osc. Coil	T.B.1	4	780623
L14	31 m. Osc. Coil	S.W.17	4	780275
L15	25 m. Osc. Coil	S.W.7	4	780276
L16	19 m. Osc. Coil	S.W.6	4	780277
L17	16 m. Osc. Coil	S.W.5	4	780278
L18	13 m. Osc. Coil	S.W.4	4	780279

R1	470.0
R2	22.0
R3	
R4	6.8
R5	100.0
R6	15.0
R7	220.0
R8	220.0
R9	
R10	4.7
R11	2.2
R12	3
R13	
R14	2
R15	
R16	2.2
R17	220.0
R18	
R19	
R20	470.0
R21	10.0
R22	1.0
R23	1
R24	7
R25	1.3
R26	



- 1** When replacing the drive cord, the scale backplate should be taken off by removing the two screws at the front left-hand side, and the two nuts at the rear right-hand side.
- 2** A 100 division Trimming Scale is printed at the top of the scale backplate to facilitate trimming the receiver outside of the cabinet. One edge of the pointer carriage serves as an index for the scale.  
Where no accurate frequency standard is available, the receiver should be calibrated against a reliable broadcasting station operating at a frequency close to that specified in the trimming instructions.
- 3** External speaker 2-4 ohms impedance.
- 4** Make sure that the voltage adjuster is in the correct position to ensure (a) maximum valve and component life, and (b) full benefit of the Pye "Fidelity" reproduction.

**TO REMOVE CHASSIS**

- The Pye quick release permits removal of the chassis without turning the cabinet over, as follows:—
- 1** Remove all plugs from back of chassis.
  - 2** Remove card back.
  - 3** Loosen grub screws and pull off knobs.
  - 4** Remove chassis fixing screws.
  - 5** Pull off indicator lampholder from its bracket and withdraw chassis.

**TO FIT NEW TUNING SCALE**

- 1** Remove receiver chassis as described above.
- 2** Unscrew nuts holding the two fixing brackets at top and bottom of scale, and withdraw damaged scale.
- 3** Place new scale in cabinet aperture and replace top and bottom fixing brackets.
- 4** Replace chassis, ensuring that control spindles appear through the centre of their respective holes in the scale plate.
- 5** Rotate Tuning Control so that gang is fully meshed, and line up the pointer with the marker dots at the low frequency end of the scale.

**RESISTORS**

No.	Ohms	Watts	±	Fig.	No.
669106	R1 470,000	1/2	20%	4	670408
669116	R2 22,000	1/2	20%	4	670400
665676	R3 1 meg.	1/2	20%	4	670410
666806	R4 6,800	1/2	20%	4	670397
667537	R5 100,000	1/2	20%	4	670404
667503	R6 15,000	1/2	20%	4	670361
669095	R7 220,000	1/2	20%	4	670406
667171	R8 220,000	1/2	20%	4	670406
668870	R9 2.2 meg.	1/2	20%	4	670412
669135	R10 4,700	1/2	20%	4	670396
669135	R11 2,200	1/2	20%	4	670394
669135	R12 390	1/2	20%	4	671061
669135	R13 1 meg. Volume Control	1/2	20%	4	811345
80272	R14 220	1/2	20%	4	670388
80272	R15 10 meg.	1/2	20%	4	670416
80272	R16 2,200	1/2	20%	4	570394
80272	R17 220,000	1/2	20%	4	670406
80272	R18 1 meg.	1/2	20%	4	670410
80272	R19 1 meg.	1/2	20%	4	670410
80272	R20 470,000	1/2	20%	4	670408
80272	R21 10,000	1/2	20%	4	670398
80272	R22 1,000	1/2	5%	4	670697
80272	R23 180	1/2	10%	4	670509
80272	R24 750 Tapped at 300Ω	1/2	5%	1, 3 & 4	672133
80272	R25 1,330 Tapped at 130, 1130 and 1230Ω	1/2	5%	1, 3 & 4	672134
80272	R26 47	1/2	20%	4	670384

**TRANSFORMERS**

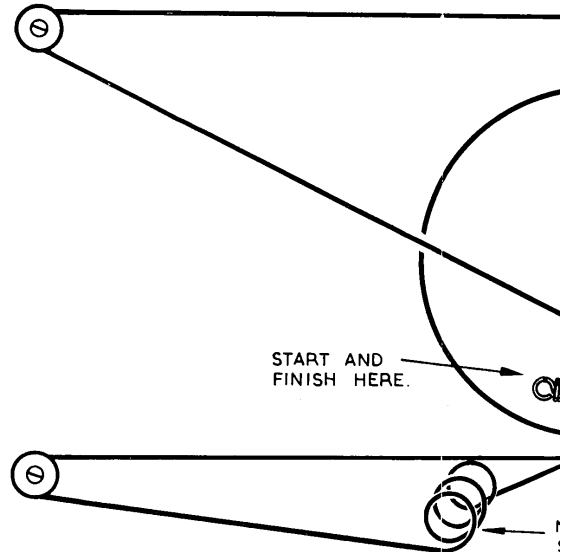
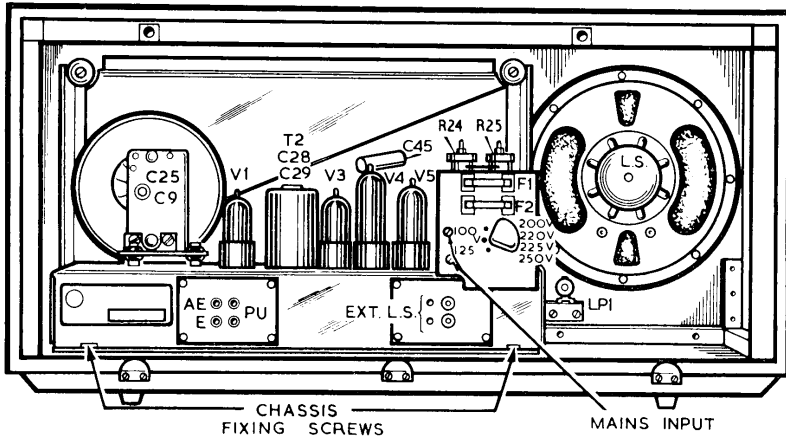
	Specification	Fig.	No.
T1	1st I.F. Trans. { Prim. 12.2Ω } { Sec. 12.2Ω }	3	770369A
T2	2nd I.F. Trans. { Prim. 12.2Ω } { Sec. 12.2Ω }	1 & 3	770369A
T3	Output Trans. { Prim. Start to Tap 18.5Ω } { Prim. Start to Finish 500Ω } { Feedback Winding 13.5Ω }	3	770067

**SWITCHES, LAMPS, ETC.**

	Specification	Fig.	No.
S1A	Rear Bank 3 } Aerial Section	4	831105
S1B	Front Bank 3 } Wavechange Switch		
S1C	Rear Bank 2 } 9 position		
S1D	Front Bank 2 } Osc. Section		
S1E	Rear Bank 1 } Tonemaster and	4	831104
S1F	Front Bank 1 } ON/OFF Switch		
S2A	Rear Bank 1 } 5 position	1	704137
S2B	Front Bank 1 } Mains ON/OFF Switch		
S2C	Mains ON/OFF Switch	1	850080
LPI	Dial Lamp. 12 v. 0.1 amp.	1	
F1	Cartridge Fuse. 1 amp.	1 & 3	
F2	Cartridge Fuse. 1 amp.	1 & 3	
SK1	Mains Voltage Adjuster Socket	1	
LS	Loudspeaker	1	

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

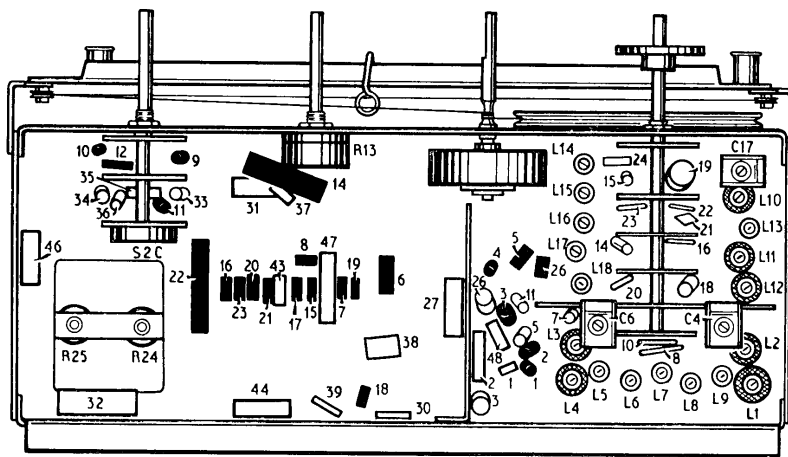
THE DRIVE CORD SHOULD BE OF NYLON BR  
LENGTH  $76\frac{1}{2}$ " BETWEEN CENTRES OF L



DRIVE CORD VIEWED FROM FRONT OF CHA  
FULLY CLOSED.

FIG. 1

FIG. 2



NOTE :- RESISTORS SHOWN SOLID BLACK.

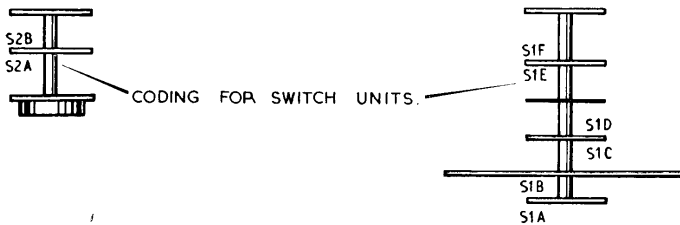
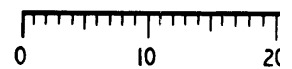


FIG. 4

	0	5	10	15	20
13M mc/s			22.6		
16M mc/s			18.6		
19M mc/s			16.0		
25M mc/s		12.4			
31M mc/s		10.1		10.0	
SW2 mts			32		
SW1 mts		70			
MW mts		200			
LW mts				110	



SHOULD BE OF NYLON BRAIDED GLASS YARN.  
BETWEEN CENTRES OF LOOPS.

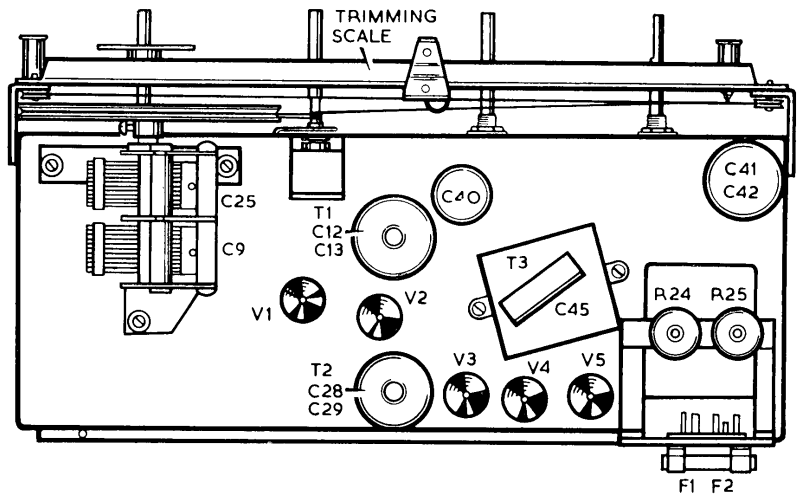
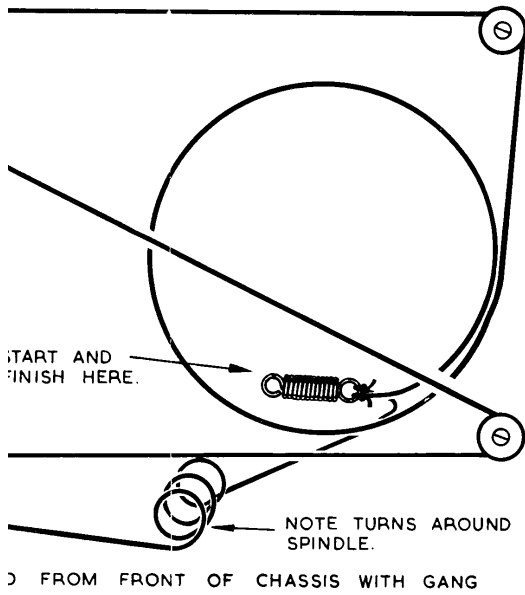
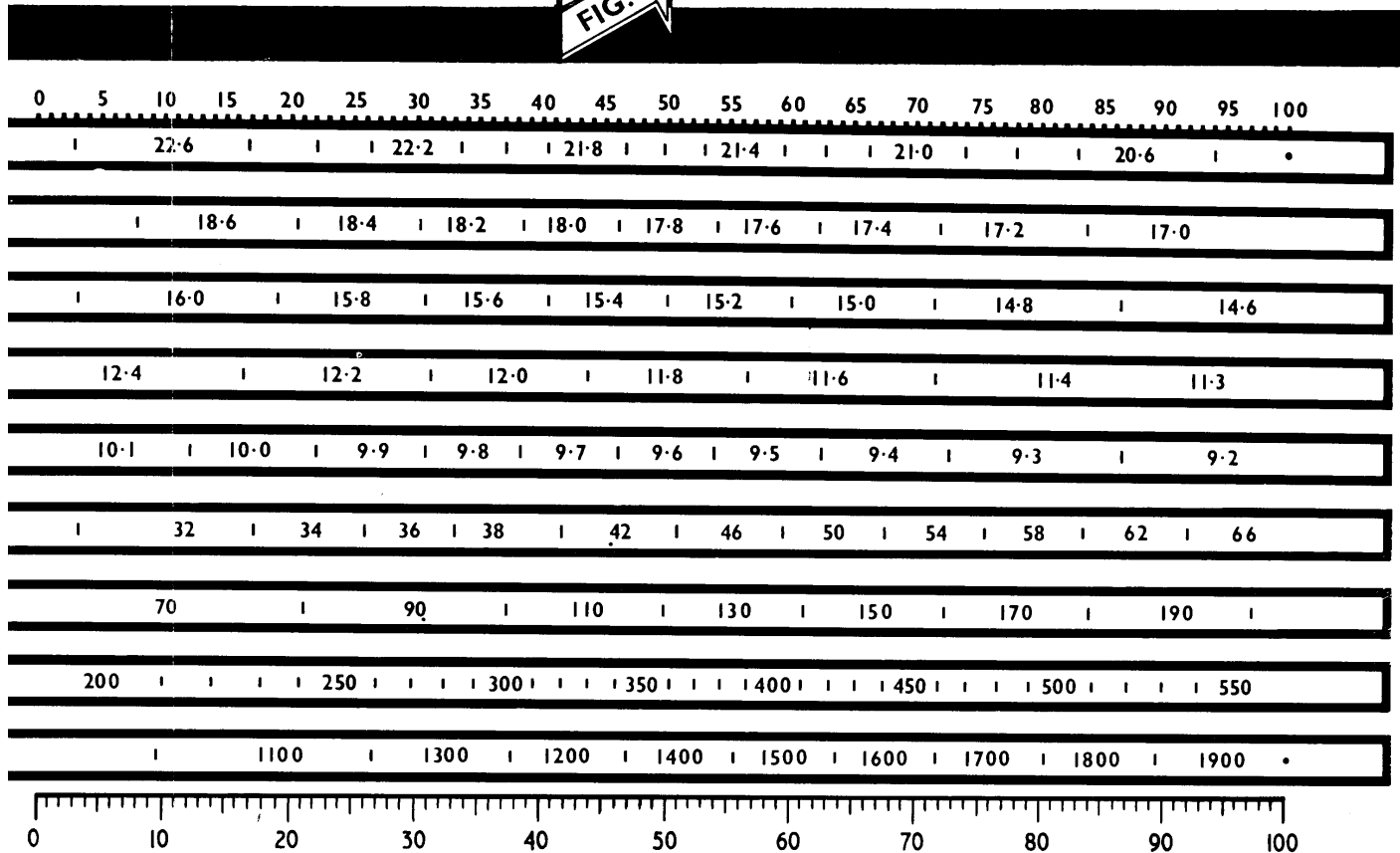


FIG. 3



CALIBRATION CHART