ECLIPSE RADIO PTY. LTD.
(A DIVISION OF ELECTRONIC INDUSTRIES LTD.)
11-21 STURT STREET, SOUTH MELBOURNE
TECHNICAL BULLETIN

MODEL "D.J.P." GRAMO/RADIO COMBINATION

A. 3-SPEED AUTOMATIC RECORD CHANGER
AND
A. 5-VALVE SUPERHETERODYNE BROADCAST RECEIVER

FOR OPERATION FROM:
200-250 Volt 50 Cycle A.C. Electric Supply Mains.
Power Transformer Primary Mains Taps 200-220V. and 221-250V.

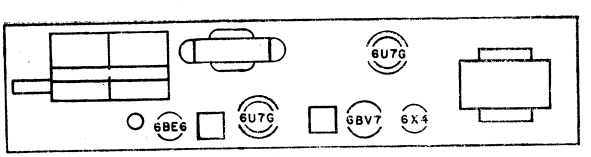
POWER CONSUMPTION:
Radio Operation 40 Watts
Gramo Operation 60 Watts
approx.

TUNING RANGE:
535-1610 Kc/s. 560.7-186.3 Metres.

INTERMEDIATE FREQUENCY: 455 Kc/s.

THIS BULLETIN CONTAINS:

1. Technical Specifications.
2. Alignment Procedure.
3. Circuit Diagram.
4. Component Parts List.
5. Coil and IF. Transformer Connections.
6. Valve Placement Diagram.
7. Dial Cording Diagram.



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ALIGNMENT PROCEDURE

EQUIPMENT

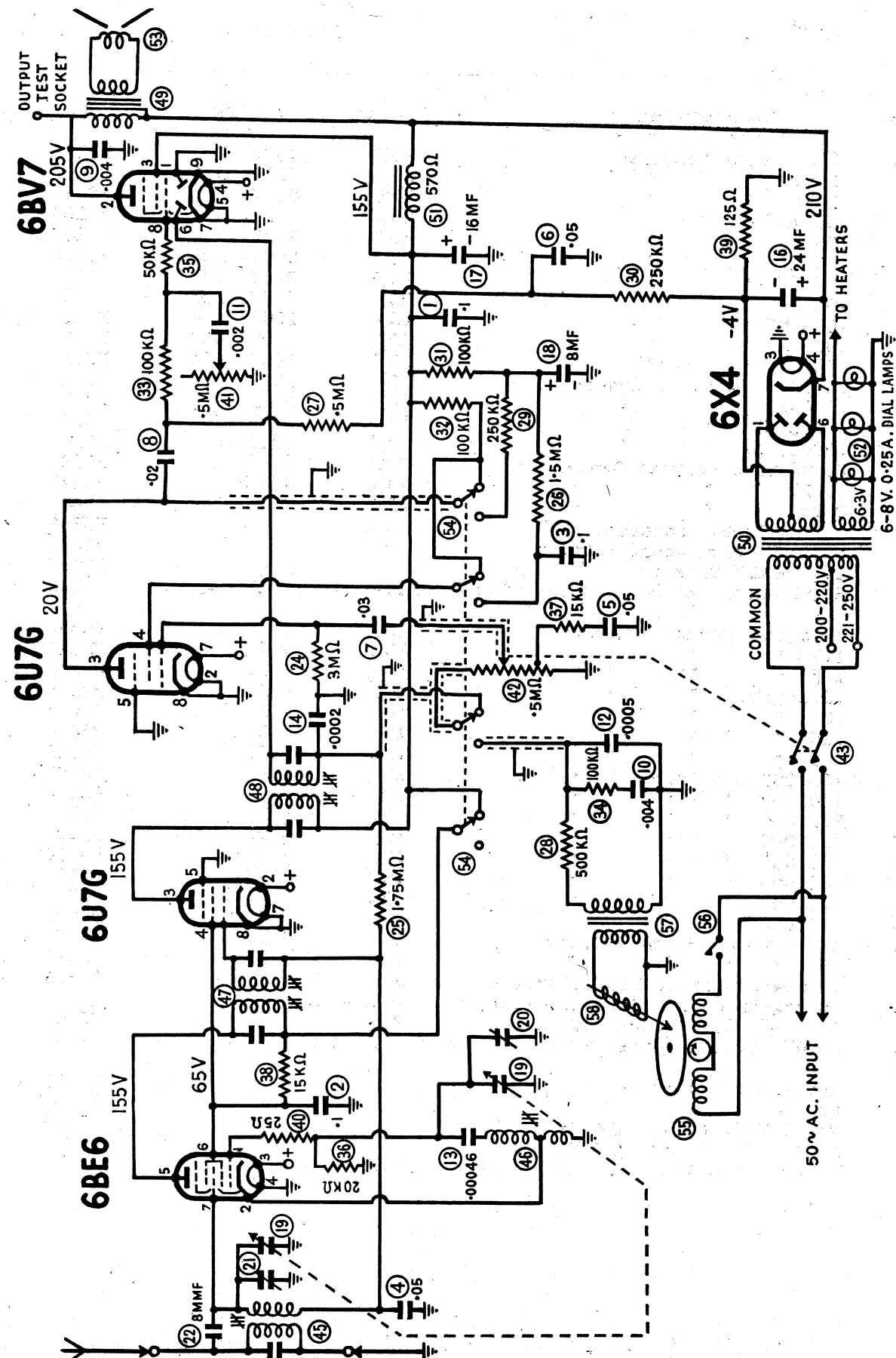
Signal Generator:
Output Meter:
Mica Capacitor: 0.01MF. (for I.F. trans. alignment).
Dummy Antenna: 200MMF. Mica Capacitor.
Alignment Tools: Type M195 and PM581.

ALIGNMENT CONDITIONS

Load Impedence: 7,000 ohms.
Output Level: 50 Milliwatts.
Vol. Control: Max. Vol. fully clockwise.
Intermed. Freq.: 455 Kc/s.
Input Voltage: 230 Volts 50 Cycle A.C. input to trans. 221-250 volt pri. tap.
Tone Control: Treble position.

Operation No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.	To control grid of 6U7G I.F. valve	455 Kc/s.	0.01MF. Mica capacitor in series with generator	Remove chassis from cabinet. Leave grid cap on valve. Peak 2nd I.F. trans pri. and sec. for max. output.
2.	To control grid of 6BE6 valve (pin No. 7)	455 Kc/s.	0.01MF. Mica capacitor in series with generator	Turn cond. gang plates fully out of mesh. Leave grid wire attached to valve socket. Peak 1st I.F. trans pri. and sec. for max. output.
3.				Repeat operations Nos. 1 and 2.
4.	Fully mesh the cond. gang plates. Set the centre of the dial pointer to align with the centre of the end of travel mark on the dial reading near 540 Kc/s.			
5.	To antenna lead	600 Kc/s.	200MMF. Mica capacitor in series with generator	Turn cond. gang and dial pointer until centre of dial pointer aligns with centre of 600 Kc/s. spot on dial reading. Leave the gang and pointer set in this position and peak the oscl. coil inductance trim (iron core) for max. output.
6.	To antenna lead	1400 Kc/s.	200MMF. Mica capacitor in series with generator	Turn cond. gang and dial pointer until centre of dial pointer aligns with centre of 1400 Kc/s. spot on dial reading. Adjust oscl. coil trim condenser for logging and peak antenna trans. trim. condenser for max. output.
7.	To antenna lead	600 Kc/s.	200MMF. Mica capacitor in series with generator	Turn cond. gang and dial pointer until centre of dial pointer aligns with centre of 600 Kc/s. spot on dial reading. Leave the gang and pointer set in this position. Re-peak oscl. coil ind. trim. (iron core) and then peak the antenna trans. ind. trim. (iron core) for max. output. Do not rock the gang or dial pointer to and fro through the signal while adjusting or move them until after the inductance trimmer (iron core) of both of these transformers has been peaked for max. output.
8.	To antenna lead	1400 Kc/s.	200MMF. Mica capacitor in series with generator	Turn cond. gang and dial pointer until centre of dial pointer aligns with centre of 1400 Kc/s. spot on dial reading. Adjust osc. coil trim. condenser for logging and re-peak antenna trans. trim. condenser for max. output.

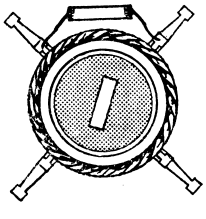
Tuning range after alignment: 535-1610 Kc/s.


MODEL - DJP
IF.- 455 Kc/s 1000 Ω/V. VOLTMETER
PB675
6BV7
6U7G
6U7G
6BE6
6X4
OUTPUT TEST SOCKET
205V
155V
20V
155V
65V
155V
210V
-4V
TO HEATERS
6-8V. 0·25A. DIAL LAMPS
6·3V
COMMON
200-220V
221-250V
50~ AC. INPUT
570Ω
·16MF
·05
250KΩ
125Ω
·24MF
50KΩ
100KΩ
·002
·5MΩ
·5MΩ
100KΩ
8MF
100 KΩ
250 KΩ
1·5MΩ
·1
·02
·03
15 KΩ
·05
3MΩ
·0002
·5MΩ
·0005
100KΩ
·004
500 KΩ
1·75MΩ
15 KΩ
·1
25Ω
20KΩ
·00046
8MMF
·05
·00005

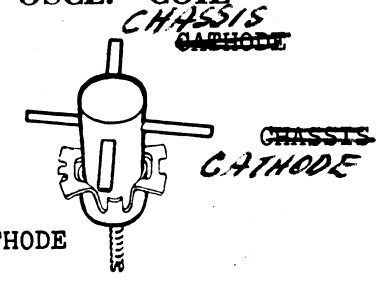
Circuit No.	Description	Tol. ±	Rating	Part No.
1.	.1 MF Paper Condenser	20%	400V. DCW	PC103
2.	.1 MF " "	20%	400V. DCW	PC103
3.	.1 MF " "	20%	200V. DCW	PC218
4.	.05 MF " "	20%	200V. DCW	PC102
5.	.05 MF " "	20%	200V. DCW	PC102
6.	.05 MF " "	20%	200V. DCW	PC102
7.	.03 MF " "	20%	200V. DCW	PC303
8.	.02 MF " "	20%	400V. DCW	PC111
9.	.004 MF " "	20%	600V. DCW	PC221
10.	.004 MF " "	20%	600V. DCW	PC221
11.	.002 MF " "	20%	600V. DCW	PC112
12.	.0005 MF Mica Condenser	10%	1000 VT.	PC144
13.	.00046 MF " "	2½%	1000 VT.	PC728
14.	.0002 MF " "	10%	1000 VT.	PC124
15.	.00005 MF " "	10%	1000 VT.	PC141
16.	24 MF Electrolytic Condenser	20%	1000 VT	PC686
17.	16 MF " "	20%	350 PV	PC275
18.	8 MF " "	20%	350 PV	PC280
19.	2 Gang Varb. Condenser			PC636
20.	0-30 MMF Wire Wound Trimmer			PC663
21.	1.5-18 MMF Trimmer			PC737
22.	8 MMF Ceramicon Cond. (Part of ant. trans. circuit No. 45)			PC832
23.				
24.	3 megohm Carbon Resistor	10%	½ W.	PR282
25.	1.75 " " "	10%	½ W.	PR248
26.	1.5 " " "	10%	1 W.	PR210
27.	.5 megohm " "	10%	½ W.	PR245
28.	.5 " " "	10%	½ W.	PR245
29.	.25 " " "	10%	1 W.	PR496
30.	.25 " " "	10%	½ W.	PR249
31.	100,000 ohm Carbon Resistor	10%	1 W.	PR165
32.	100,000 " " "	10%	1 W.	PR165
33.	100,000 " " "	10%	½ W.	PR103
34.	100,000 " " "	10%	½ W.	PR103
35.	50,000 " " "	10%	½ W.	PR160
36.	20,000 " " "	10%	½ W.	PR166
37.	15,000 " " "	10%	½ W.	PR500
38.	15,000 " " "	10%	1 W.	PR225
39.	125 ohm Wire Wound Resistor	10%	½ W.	PR739
40.	25 " " " "	10%	½ W.	PR281
41.	.5 megohm Carbon Potentiometer	20%		PR380
42.	.5 megohm Carbon Potentiometer, tapped at 40K. ohms, DP. ST. switch attached	20%		PR738
43.	ON/OFF Switch, part of volume control circuit No. 42.			—
44.				
45.	Antenna Transformer			PT905
46.	Osc. Coil			PT859
47.	No. 1 I.F. Trans. 455 Kc/s.			PT869
48.	No. 2 I.F. Trans. 455 Kc/s.			PT869
49.	Speaker Input Trans. 7,000 - 2 ohms Imped. Code No. KBG64			PT967

50.	Power Trans. 200-250V. 50 cycle	PT938
	Power Trans. 200-260V. 40 cycle	PT939
51.	Choke 12H. 50 Ma. 570 ohms DC Resist. type 12/50	PT966
52.	Dial Lamp 6-8V. 0.25 amp. Min. Screw Base T3¼ Bulb	PM678
53.	8" Permag. Speaker type 8M., Cone type F62	K187
54.	Gramo/Radio Switch 1D.4P. 2 Way	S128
55.	Record Changer – Collaro type 3RC521 with ortho-dynamic head, 200-250V., 50 cycle operation	M289
56.	Motor ON/OFF Switch, part of record changer circuit No. 55	–
57.	Coupling Transformer	PT958
58.	Pick-up Head ortho-dynamic, includes needles	219/524
	40 Cycle Drive Bush for record changer	213/524
	Tuning Spindle Assy.	A116/698-2
	Volume-Tone-G/R-Switch Spindle Extension	3/758-3
	Dial Pointer Assy.	A103/688
	Dial Drum Assy.	A102/617
	Grommet - gang mount.	64/30A
	Bush - gang mount.	93/53-1
	Socket - 7 pin	A104/58
	Socket - 8 pin	PM532
	Socket - 9 pin	279/250
	Valve Shield (6U7G)	PM217
	Valve Shield Earth Contact (6U7G)	22/30C
	Clip I.F. Trans. Mount	7/670
	Input Trans. Mount - strip bakelite	347/64
	Input Trans. Insulator Strip - red rope paper	348/64
	Phone Tips	11/252
	Peter Pan Badge	54/E266-2
	Term. Strip, A.C. Mains	A567/30C
	" " 3 lug	A557/30C
	" " 2 lug	A556/30C
	Dial Reading	7/783-1
	Dial Pulley Stud (4)	18/87
	Dial Pulley (4), 5/8" dia. - wood	13/613
	Cover Board - beneath receiver drawer	10/783-1
	Cabinet Assy. - walnut	235/221-1
	" " - mahogany	235/221-2
	" " - camphor-laurel	235/221-3
	Cabinet Grille	11/783
	Cabinet Back	237/221
	Osc. Coil Mount Clip	6/622
	A.C. Junction Block - bakelite	297/250
	Tuning Knob - walnut	82/754-5
	Volume Knob - "	82/754-4
	Tone Knob - "	82/754-6
	Gramo Knob - "	82/754-7
	Knob Collar	56/678

ANTENNA TRANS.



OSCL. COIL

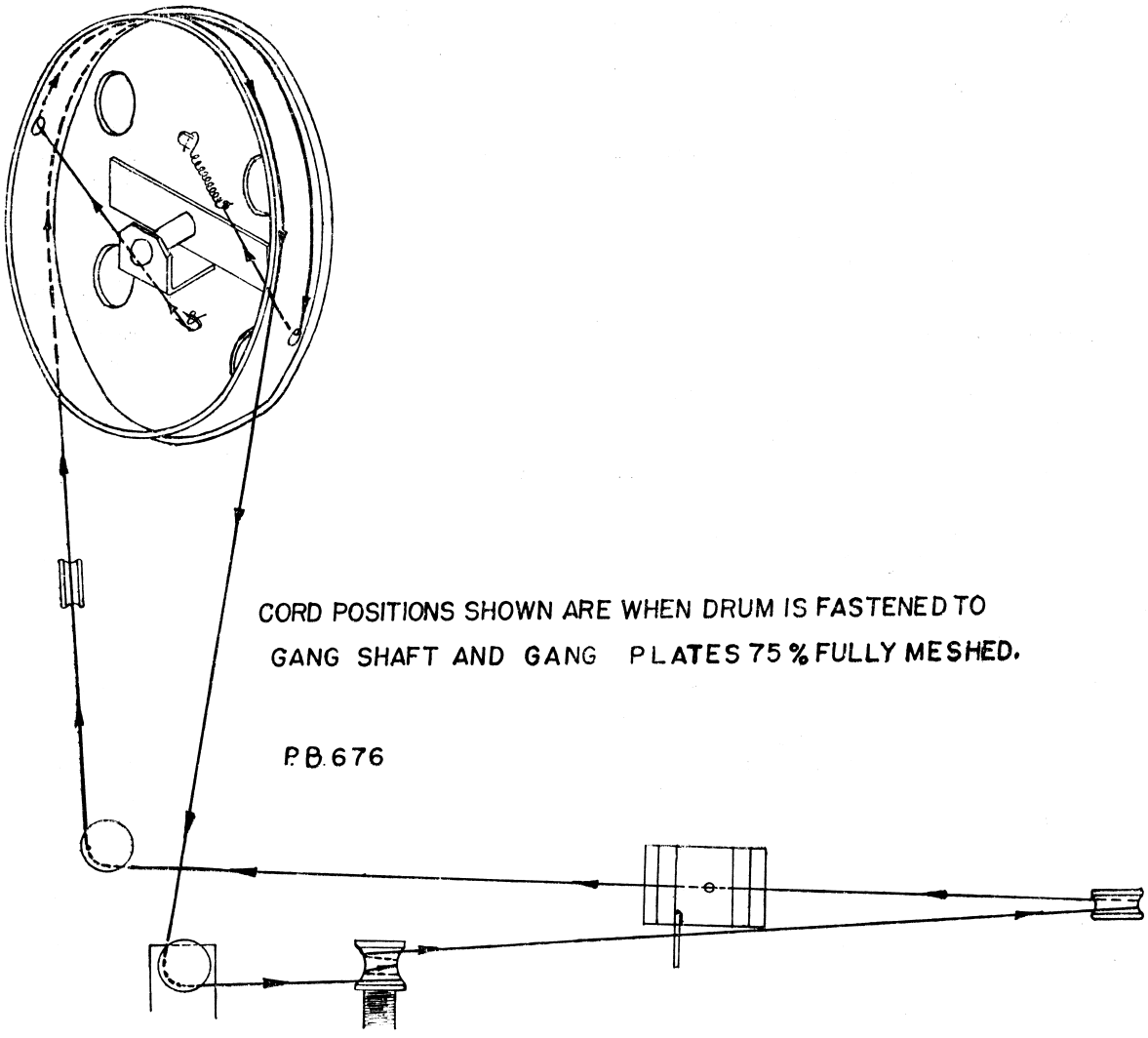


CORDING OF DIAL DRIVE

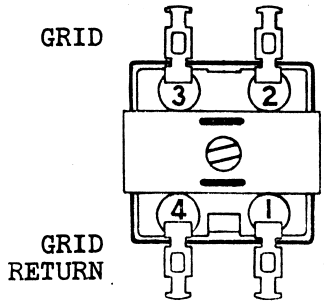
Length of cord required is 7 ft. 8 ins., which includes about 8 ins. to spare for tying to tension spring.

Cord Part No. 34/754.

Tension Spring Part No. 27/87.



1st IF. TRANS.



2nd IF. TRANS.