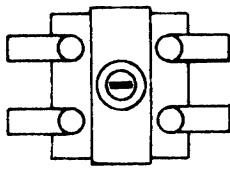


CONNECTIONS FOR I.F. TRANS. PART No. PT869

1ST. I.F. TRANS.

B+ GRID RETURN  
AVC

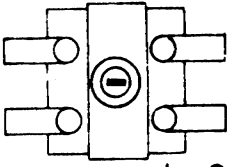


RED SPOT  
ON LUG

PLATE GRID

2ND. I.F. TRANS.

PLATE DIODE



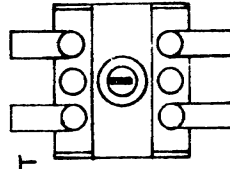
RED SPOT  
ON LUG

B+ DIODE  
RETURN

CONNECTIONS FOR I.F. TRANS. PART No. L284

1ST. I.F. TRANS.

PLATE B+

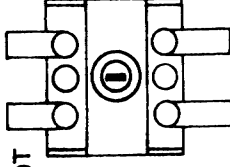


RED SPOT  
ON LUG

GRID RETURN  
AVC

2ND. I.F. TRANS.

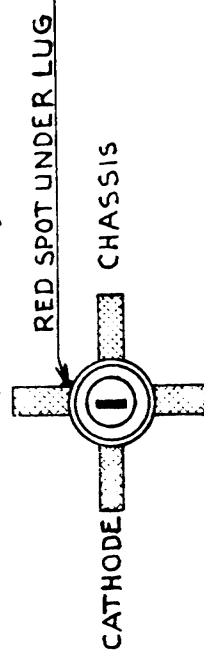
B+ PLATE



RED SPOT  
ON LUG

DIODE  
RETURN

OSCILLATOR COIL  
GRID (SERIES PAD)



CATHODE

LUG VIEW OF COIL



**RADIO CORPORATION PTY. LTD.**

DIVISION OF ELECTRONIC INDUSTRIES LTD.  
126-130 GRANT STREET, SOUTH MELBOURNE, S.C.A.

**TECHNICAL BULLETIN**

**TABLEGRAM MODEL—ENK**

An Automatic 4 Speed Record Changer (78, 45, 33-1/3, 16-2/3, r.p.m) and a 5 valve Superheterodyne Broadcast Band Receiver.

FOR OPERATION FROM:

- 200-240 Volt 40 or 50 Cycle AC. Mains (Power Transformer T171)
- Power trans Primary Tap—red—common.
- " " " "—green—200 Volt mains.
- " " " "—black—230 & 240 Volt mains.

NOTE: 1

When the receiver is to be operated from a 250 volt 40 or 50 cycle AC. supply mains the transformer primary connections are as for the 240 volt supply mains but a 180 Ohm 10 watt resistor Part No. R166 is to be mounted beneath the chassis and wired in the power trans. common lead (red.)

NOTE: 2

The record changer drive pulley for 40 cycle mains operation is Part No. 846/524.

POWER CONSUMPTION:

- Radio Operation:- 40 watts—approx.
- Gramo Operation:- 60 Watts—approx.

TUNING RANGE:

Broadcast Band: 535-1610 Kc/s. - 560.7-186.3 Metres.

THIS BULLETIN CONTAINS:

1. Alignment Instructions.
2. Circuit Diagram.
3. Component
4. Connections for IF. and RF. Transformers.
5. Valve Placement Diagram.

## ALIGNMENT PROCEDURE

ASTOR MODEL ENK.

## EQUIPMENT

## ALIGNMENT CONDITIONS

Signal Generator:	Modulated 400 CPS.	Load Impedance:	7000 Ohms
Output Meter :		Output Level :	50 Milliwatts
Mica Capacitor :	0.01MF Mica Capacitor	Vol. Control :	Max. vol. fully clockwise.
	Part No. P0145 for		
Alignment Tool :	I.F. trans. alignment	Intermediate	
	Straight type Part No.	Frequency :	455 Kc/s,
	PMS81 for b/cast. trim.	Input voltage :	230V 50 cycle
	adjustment		AC. Input to
Alignment Tool :	Flexible type Part No.		trans. 230-240V.
	48/712 for b/cast. osc.	Tone Control :	Pri. tap.
	coil core and I.F.T.		Treble position
	core adjustment		fully clockwise
		Grano-radio	
		Switch :	Radio position.

## I.F. TRANS. ALIGNMENT

Operation Generator	Dummy	Instructions.
Connection	Antenna	
Frequency		

1. It is not necessary to remove the chassis from the cabinet to adjust the iron cores in the I.F. transformers. Only the cabinet base has to be removed from the cabinet.

2. Make sure pick-up arm is anchored to its rest pillar.

3. Unscrew and remove three screws and four rubber cushion feet located around edge of cabinet base then remove cabinet base.

4. To signal grid of 6BHS valve (pin No.2.)
 

455 Kc/s.	0.01MF Mica capacitor in series with generator	Leave grid wire attached to valve socket. Peak 2nd I.F. trans. pri. and sec. for max. output.
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5. To signal grid of 6BB6 valve (pin No.7)
 

455 Kc/s.	0.01MF Mica capacitor in series with generator	Turn tuning control until condenser gang plates are fully out of mesh. Leave grid wire attached to valve socket. Peak 1st. I.F. trans pri. and sec. Iron cores for max. output.
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6. Repeat operations 4 and 5.

## BROADCAST ALIGNMENT

- NOTE 1. Before access to the adjustment points may be made on this receiver for complete adjustment of the RF. stages it is necessary to:-

"A" Remove the chassis from the cabinet.

"B" Remove the front section of the cabinet from the main section.

"C" Refit back into the cabinet only the chassis and attach the control knobs to the spindles.

Instructions for removing and refitting the chassis also for removing the front section of the cabinet are detailed in the following pages of this bulletin.

- NOTE 2. To inject a signal into the ferrite rod aerial connect to active terminal of signal generator RF. output approximately 2 ft. of aerial wire then fashion the aerial wire into a vertical position.

- NOTE 3. Tilt cabinet backward until it rests on its rear end. Turn cabinet so that control knob side of cabinet is nearest to 2 ft. of vertical aerial wire. A distance of not less than 1 ft. 6 ins is to be between the control knob side of the cabinet and the 2 ft. of vertical wire connected to signal generator.

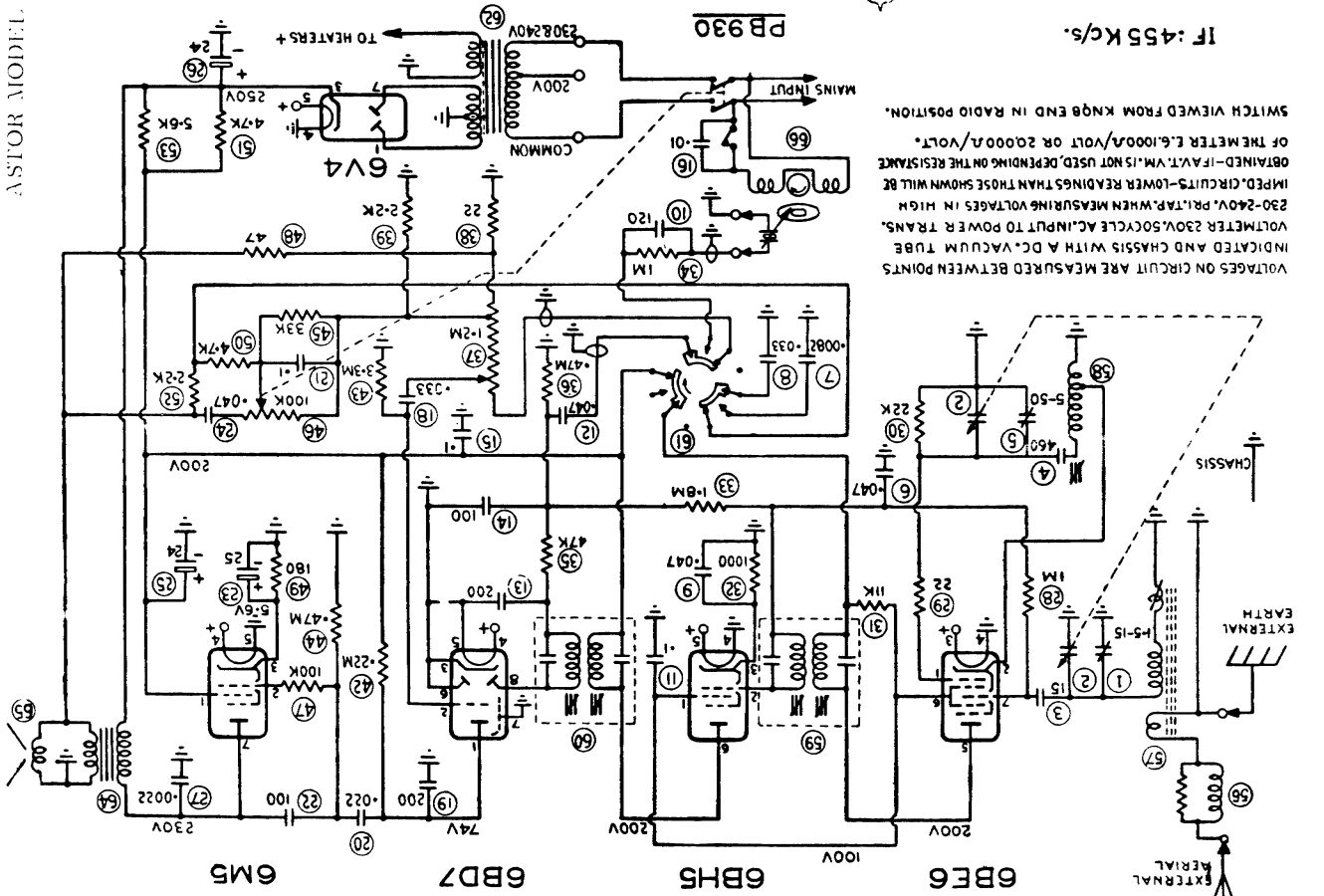
Operation Generator	Generator	Dummy	Instructions.
No.	Connection	Frequency	Antenna

1. Fully mesh condenser gang plates then fit push-on type transparent disc so that centre of line on disc aligns with centre of end of travel mark on dial reading near 535 Kc/s.

2. Reconnect speaker leads to receiver

3. Refer 600 Kc/s. Refer note 2 & 3
 

Turn cond. gang and transparent disc until line on disc is on 600 Kc/s. dial mark. Leave the cond. gang and disc set in this position then peak osc. coil ind. trim. (Iron core) and the sec. trimmer coil on ferrite rod aerial for max. output. Do not rock the cond. gang to and fro through the signal or move the line on the disc off the 600 Kc/s. dial mark until after the ind. trimmer and the rod aerial trimmer coil have been peaked for max. output.
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VOLTAGES ON CIRCUIT ARE MEASURED BETWEEN POINTS INDICATED AND CHASSIS WITH A D.C. VACUUM TUBE VOLTMETER 230V. 50CYCLE A.C. INPUT TO POWER TRANS. IMPED. CIRCUITS—LOWER READINGS THAN THOSE SHOWN WILL BE OBTAINED—F.V.A.T.M. IS NOT USED, DEPENDING ON THE RESISTANCE OF THE METER I.E. 1000Ω/VOLT OR 20000Ω/VOLT.

SWITCH VIEWED FROM KNOB END IN RADIO POSITION.

4. Refer Note 2 & 3 1400 Kc/s. Refer Note 2 & 3 1400 Kc/s. Turn cond. gang and transparent disc until line on disc is on 1400 Kc/s, dial mark. Adjust osc. coil trim. cond. then rod aerial trim. cond. for max output.
5. Repeat operations 3 and 4
6. Tuning range after alignment 535-1610 Kc/s.
7. Remove the control knobs and pointer disc and unsolder speaker leads from terminal strip.
8. Remove chassis from cabinet and then remove the chassis support bracket from side of cabinet.
9. Refit front section of cabinet to main section of cabinet. NOTE Refitting is the reverse procedure to removing it. Securely tighten the screws.
10. Refit chassis support bracket to side of cabinet.
11. Refit chassis to cabinet and reconnect speaker leads.
12. Refit transparent dial disc and check logging.
13. Refit push-on type control knobs.
14. Refit cabinet base to cabinet and securely tighten the screws,

10%	500V DCW	PC728
2 1/2%	500V DCW	CL157
20%	100V DCW	D4733
20%	400V DCW	F8223
20%	100V DCW	D3323
20%	200V DCW	E4733
2.5%	500V DCW	CL170
20%	400V DCW	F1043
20%	200V DCW	E4733
10%	500V DCW	PC995
10%	500V DCW	PC994
20%	400V DCW	F1043
20%	600V DCW	G1033
20%	200V DCW	E3333
10%	500V DCW	PC995

