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ECLIPSE RADIO PTY. LTD.

(A DIVISION OF ELECTRONIC INDUSTRIES LTD.)

11-21 STURT STREET, SOUTH MELBOURNE

TECHNICAL BULLETIN

BULLETIN BPM-1

File: RECEIVERS AC.

Date: 24/8/54

MODEL—BPM

5 Valve Superheterodyne Broadcast Mantel Model Receiver

FOR OPERATION FROM:

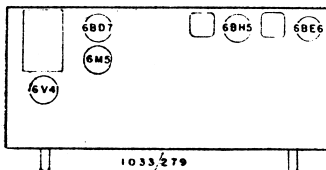
200-250 Volt 50 Cycle AC. Supply Mains.

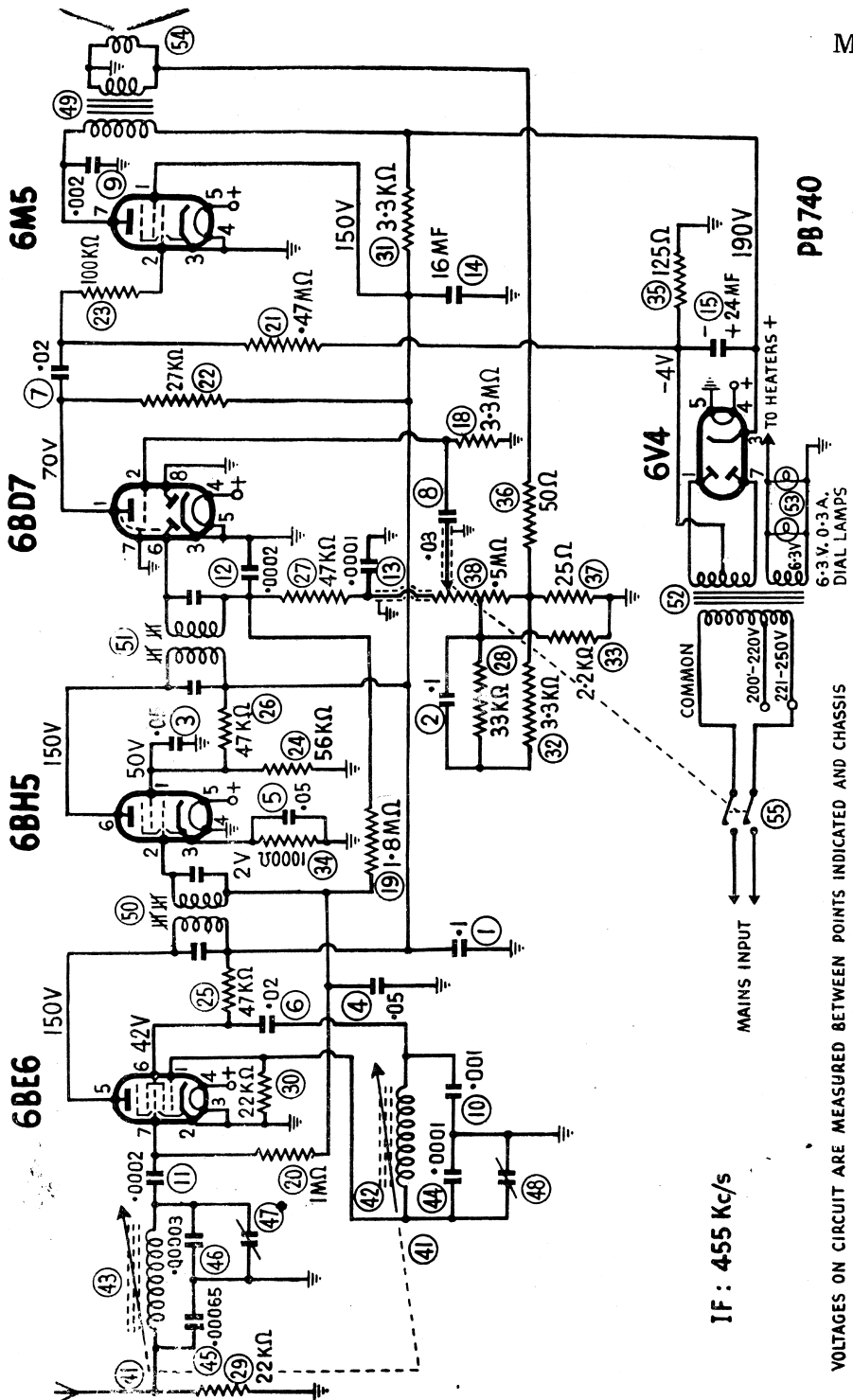
Power trans. primary mains taps: 200-220 volts and
221-250 volts.

Power Consumption 40 Watts (approx.)

TUNING RANGE:

535-1640 Kc/s. : 560.7-182.9 Metres





IF : 455 Kc/s

VOLTAGES ON CIRCUIT ARE MEASURED BETWEEN POINTS INDICATED AND CHASSIS WITH A DC. VACUUM TUBE VOLTMETER 230V. 50 CYCLE AC INPUT TO POWER TRANS. 221-250V. PRI. TAP. WHEN MEASURING VOLTAGES IN HIGH IMPED. CIRCUITS LOWER READINGS THAN THOSE SHOWN WILL BE OBTAINED - IF A V.T.V.M. IS NOT USED DEPENDING ON THE RESISTANCE OF THE METER. EG: 10000Ω/VOLT OR 200000Ω/VOLT

EQUIPMENT	ALIGNMENT CONDITIONS
Signal Generator:	Load Impedance : 7,000 ohms
Output Meter :	Output Level : 50 Milliwatts
Mica Capacitor : 0.01MF (for I.F. trans. alignment)	Vol. Control : Max. Vol. fully clockwise.
Dummy Antenna : 200 MMF. Mica Capacitor	Intermed. Freq.: 455 Kc/s.
Alignment Tool : Type M195	Input Voltage : 230 Volts 50 Cycle AC. input to trans. 221-250 volt pri. tap.

Dummy Antenna: The 200MMF. dummy antenna must not be connected to the free end of the 25 ft. antenna during alignment, but must be connected to the antenna junction lug on the chassis. It is not necessary to have the 25 ft. antenna connected to the receiver during alignment, if it is connected it should be rolled up into a small hank.

ALIGNMENT: The I.F. transformer variable iron cores and the trimmer condensers beneath the perm tuner are accessible when the rear section of the cabinet is removed from the front section. A short thin screw-driver or a long thin screw driver (having a slight bend) inserted through the holes in the chassis is used for adjusting the screw in the perm tuner trim. condensers.

Operation No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.				From each of the four corners of rear section of cabinet remove the screw and washer then prise the rear section of cabinet off the front section.
2.	To signal grid of 6BH5 valve (pin No. 2)	455 Kc/s.	0.01 MF mica capacitor in series with generator	Leave grid wire attached to valve socket. Peak 2nd I.F. trans. pri. and sec. for max. output.
3.	To signal grid of 6BE6 valve (pin No. 7)	455 Kc/s.	0.01 MF mica capacitor in series with generator	Leave grid wire attached to valve socket. Turn perm tuner so that iron cores are fully out of windings on coil formers. Peak 1st IF trans. pri. and sec. for max. output. Repeat operations No. 2 and 3.
4.				
5.				Turn perm. tuner so that the iron cores are fully out of the windings on the coil formers and hard against the stop. Set the centre of the dial pointer on the end of travel spot on the dial reading near 1700 Kc/s. From the rear of the dial the pointer may be moved with a pair of long nose pliers.
6.	To antenna junction lug on chassis	1000 Kc/s.	200 MMF mica capacitor in series with generator	Turn perm tuner until centre of dial pointer aligns with centre of spot on dial reading at 1000 Kc/s. Peak oscl. coil trimmer condenser then peak antenna trans. trim. cond. for max. output. Repeak oscl. coil trim. cond.
7.				Tuning range after alignment 535 - 1640 Kc/s.
8.				Check logging at each end of the dial; then refit rear section of the cabinet.

NOTE: Both iron cores are pre-set at the factory to an exact dimension of 2.275" between the extreme end of the former protruding through the rubber grommet, and the end of the iron cores in the former, when the unit is turned fully anti-clockwise and is hard against the stop. If incorrect logging and mis-alignment are to be avoided, no adjustment of the iron cores must be made to vary this dimension. Both iron cores must have the same colour identification spot on the screw end of the iron core.