ALIGNMENT PROCEDURE

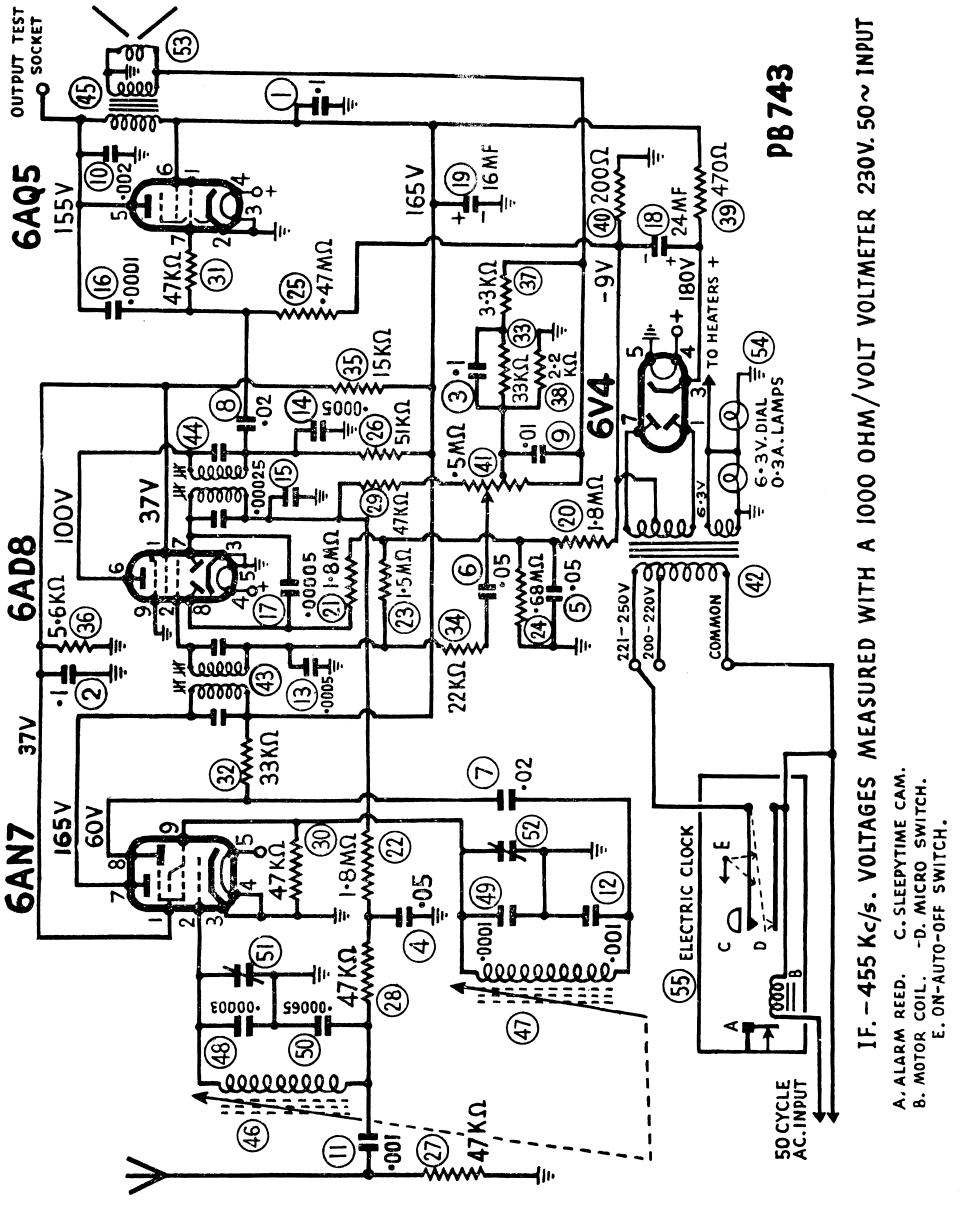
EQUIPMENT		ALIGNMENT CONDITIONS	
Signal Generator	:	Load impedance	: 5,500 ohms
Output meter	:	Output level	: 50 Milliwatts
Mica capacitor	: 0.01MF (for I.F. trans. alignment)	Vol. control	: Max. vol. fully clockwise
Dummy antenna	: 200 MMF Mica Capacitor	Intermed. Freq.	: 455 Kc/s.
Alignment tool	: Type M195	Input voltage	: 230 volts 50 cycle AC. input to trans. 221-250 volt pri. tap.

DUMMY ANTENNA: The 200 MMF 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.

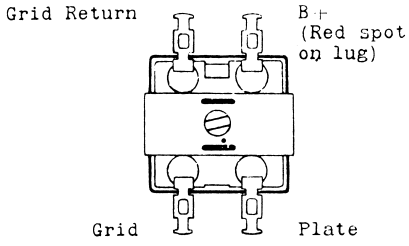
ALIGNMENT: The I.F. transformer variable iron cores and the trimmer condensers on the perm. tuner are accessible when the rear section of the cabinet is removed from the front section.

Oper. 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 rear section of cabinet off the front section.			
2.	To signal grid of 6AD8 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 6AN7 valve (pin No. 2)	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 I.F. trans. pri. and sec. for max. output.
4.				Repeat operations No. 2 and 3.
5.	DIAL POINTER: Turn perm. tuner so that iron cores are fully out of 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 front of the cabinet the dial pointer may be moved by prising out the spring clip at each end of the dial. Hold the tuning knob with one hand and with a pair of long nose pliers move the top of the dial pointer so that it slides on the dial cord.			
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.			

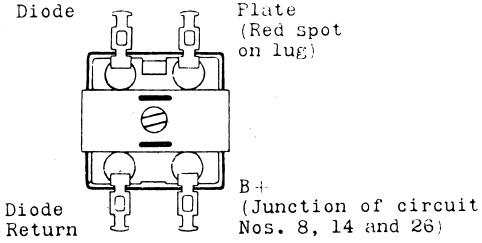
NOTE: Both iron cores are pre-set at the factory to an exact dimension of 2.275" between the extreme end of the former protruding through the rubber grommet, and the end of the iron cores in the former, when the unit is turned fully clockwise and is hard against the stop.
If incorrect logging and mis-alignment 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.



No. 1 IF. TRANS.



No. 2 IF. TRANS.



ANTENNA TRANS.
Start of winding – furthest from mounting end – AVC.
Finish of winding – nearest to mounting end – Signal Grid.

OSCL. COIL
Start of winding – furthest from mounting end – Junction of circuit Nos. 7 and 12.
Finish of winding – nearest to mounting end – Oscl. grid.

POWER TRANSFORMER

Pri. red lead – common.
Pri. green lead – 200-220V.
Pri. black lead – 221-250V.

HT. Sec.
Blue lead – start.
Yellow lead – centre tap.
Blue lead – finish.

LT. Sec. (two windings in parallel)
Start and finish
in winding wire.

DIAL READING MODIFICATION

The dial reading consisted of a printed strip and in front of which was a transparent bar which is held in position in the cabinet by a spring clip at each end of the transparent bar.

The above has been changed so that the dial reading is printed on the rear side of the transparent bar and which is held to the cabinet by the same type spring clip.

Printed dial reading (four printed dial readings)	Printed dial bar:	Vic.-Tas.	25/785-1
	A115/785 ,, ,, ,,	S.A.-W.A.	25/785-2
Transparent dial bar	25/785 ,, ,, ,,	Q'ld.	25/785-3
	,, ,, ,,	N.S.W.	25/785-4

ECLIPSE RADIO PTY. LTD.

(A DIVISION OF ELECTRONIC INDUSTRIES LTD.)

11-21 STURT STREET, SOUTH MELBOURNE

TECHNICAL BULLETIN

BULLETIN FQM-1 **File: RECEIVERS AC.** **Date: 1 10 54**

MODEL "FQM" CLOCK RADIO

4 Valve Superheterodyne Broadcast 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 33.5 Watts Radio and Clock.
4.5 Watts Clock only.

Tuning Range:

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

This Bulletin Contains:

Alignment Instructions.
Circuit Diagram.
Component
Connections for Transformers.
Valve Placement Diagram.