



ECLIPSE RADIO PTY. LTD.

(A DIVISION OF ELECTRONIC INDUSTRIES LTD.)

11-21 STURT STREET, SOUTH MELBOURNE

TECHNICAL BULLETIN

ALIGNMENT PROCEDURE

BULLETIN FNQ—1

File: RECEIVERS AC.

Date: 9/6/54

MODEL—FNQ

4 Valve Superheterodyne Broadcast Mantel Model Receiver

For Operation From:

200-250 Volts 50 Cycle AC. Mains Supply.

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

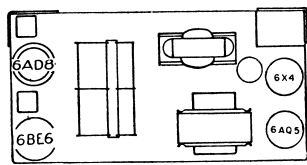
Power Consumption 40 Watts (approx.)

Tuning Range:

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

This Bulletin Contains:

1. Alignment Instructions.
2. Circuit Diagram.
3. Component Parts List.
4. Connections for IF. and RF. Transformers.



917/279 VALVE PLACEMENT DIAGRAM

EQUIPMENT

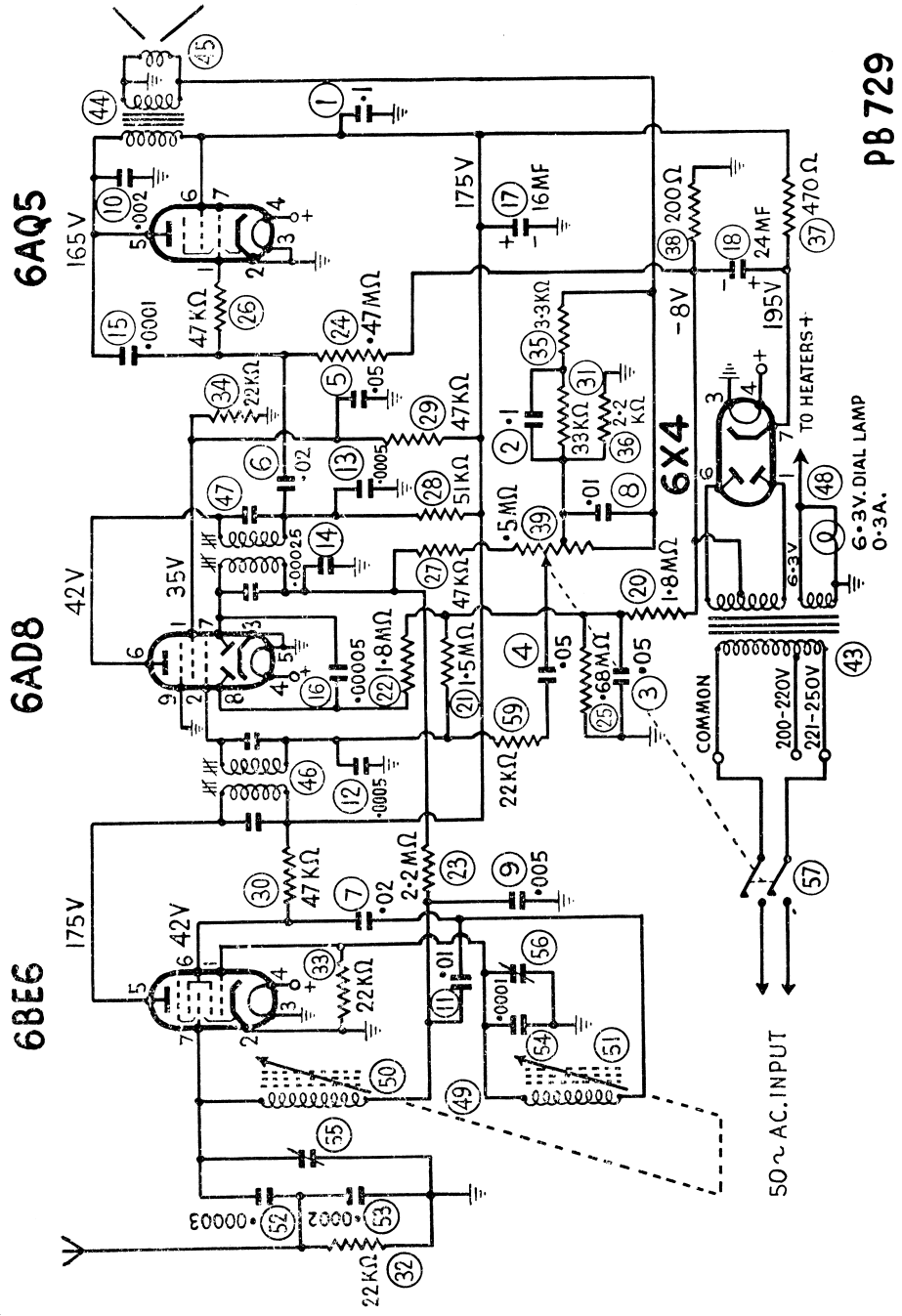
ALIGNMENT CONDITIONS

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 : 200MMF. Mica Capacitor	Intermed. Freq.: 455 Kc/s.
Alignment Tools : Type M195 and PM581.	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.

Opera- tion	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
No.				
1.				To remove chassis from cabinet, prise off push on knob from vol. control spindle and centre knob from dial reading. Remove dial reading by unscrewing three screws in metal disc in centre of dial. Remove three screws from cabinet back, then, from beneath cabinet, two screws which fasten the cabinet to the chassis.
2.				To represent the pointer on the cabinet, connect a piece of stiff wire to the chassis and fashion it into position so that the wire is perpendicular to the centre of the perm. tuner dial shaft.
3.				Turn perm. tuner dial spindle fully anti-clockwise, then fit dial reading so that centre of end of travel spot on H.F. end of dial reading aligns with centre of wire pointer.
4.		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.
5.		455 Kc/s.	0.01MF Mica capacitor in series with generator.	Turn dial and perm. tuner fully anti-clockwise. Leave grid wire attached to valve socket. Peak 1st I.F. trans. pri. and sec. for max. output.
6.				Repeat operations Nos. 4 and 5.
7.	To antenna junction lug on chassis	1000 Kc/s.	200MMF Mica capacitor in series with generator.	Turn perm. tuner and dial until centre of 1000 Kc/s. spot on dial aligns with centre of wire pointer. Peak oscl. coil trim. cond. then peak antenna trans. trim. cond. for max. output. Re-peak oscl. coil trim. cond.
8.				Check logging at each end of the dial.

MODEL—FNQ



PB 729

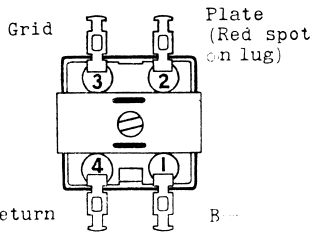
IF. 455 Kc/s VOLTAGES MEASURED WITH A 1000Ω/VOLT VOLTMETER

9. Remove dial reading and wire pointer attached to chassis; then refit chassis to cabinet. Turn perm. tuner and dial spindle fully anti-clockwise. Refit dial reading so that centre of end of travel spot on H.F. end of dial aligns with centre of pointer mark on cabinet.
10. Check logging at each end of the dial. Tuning range after alignment 535-1640 Kc/s.

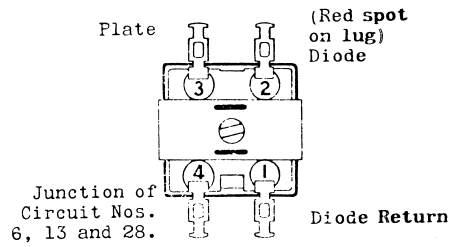
NOTE: Both iron cores of the perm. tuner are pre-set at the factory to an exact dimension of 2.275" between the extreme end of the former protruding through the rubber grommet, and the end of the iron core in the former, when the unit is turned fully anti-clockwise and is hard against the stop.

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.

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 11.
 Finish of winding - nearest to mounting end - Osci. grid.