RADIO CORPORATION PTY. LTD. File: Receivers Bulletin: APK-1

26-130 GRANT STREET, SOUTH MELBOURNE, S.C.4. DIVISION OF ELECTRONIC INDUSTRIES LTD.

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TECHNICAL BULLETIN

4 VALVE SUPERHETERODYNE BROADCAST MODEL — APK MANTEL

RECEIVER

FOR OPERATION FROM:

200-240 Volt 50 Cycle Supply Mains (Power Transformer PT938) - 200 Volt mains - 230 & 240 Volt mains Power Trans. Primary Mains Tap - common

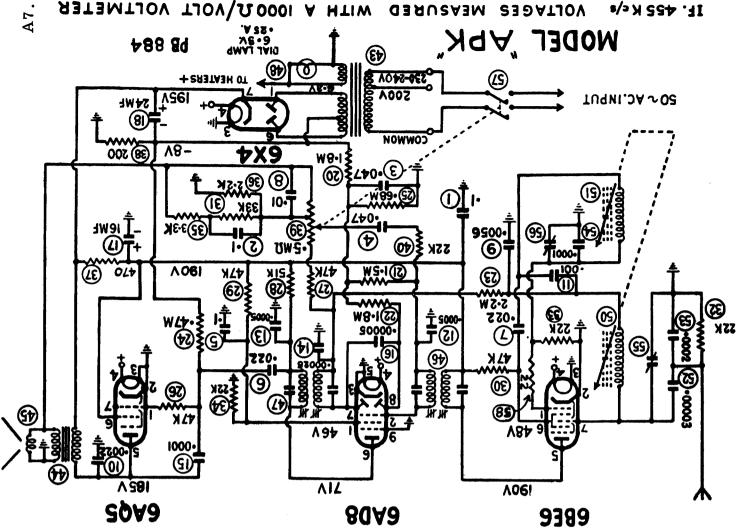
230-250 Volt 40 & 50 Cycle Supply Mains (Power Transformer PT939)

- 230 Volt mains. - 250 Volt mains Power Trans. Primary Mains Fap - common

40 Watts approx. POWER CONSUMPTION:

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

6BE6 UNER **6AD8** 6AQ5 O 6X4 TRANS



ALIGNMENT PROCEDURE:

ALIGNMENT CONDITIONS:

50 Milliwatts 5.500 ohms

DIAL POINTER SETTING

EQUIPMENT:

Dummy Antenna Mica Capacitor: Output Meter: Signal Generator 200MMF Mica 0.01MF (for IF. capacitor trans.alignment) Output Level: Load impedance:

Intermed. Freq: Vol. Control: Input Voltage

455 Kc/s. to trans. 230-240 volt pri 230 Volt 50 Cycle AC. input Max. Vol. fully clockwise

Type M195 and PM581

Alignment Tools:

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

NOTE 2:

removed from the front section as detailed on page 8. All alignment points are accessible when the rear section of the cabinet is

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

TRANS. ALIGNMENT

| 1. To control 455 Kc/s. 0.01MF Mica Leave grid wire attached to capacitor valve socket. Peak 2nd IF. trans. valve (pin No. 2) 2. To control 455 Kc/s. 0.01MF Mica Turn dial/tuning knob anti-clock grid of 6BE6 capacitor wise until perm. tuner iron cores in series are out of the windings on coil with gen- agianst the stop. Leave grid wire attached to valve socket. Peak 1st IF. trans. pri. and sec. for max. output. | ٥. ا | peration No. | Operation Generator Generator No. Connection Frequency | Generator Frequency | Dummy Antenna | Instructions |
|---|------|-----------------|--|------------------------|-----------------------|---|
| No. 2) with generate valve (pin with generate valve) (pin with generate valve) (pin with generate valve) (pin with generate valve) (pin with generator valve) | | | To control grid of 6AD valve (pin | 455 Kc/s. | O.OlMF Mica capacitor | Leave grid wire attached to valve socket. Peak 2nd IF. trans. |
| To control 455 Kc/s. O.OlMF Mica grid of 6BE6 capacitor valve (pin in series with generator | | | No. 2) | | with generat | DL OL CHIM BOLD TOT HOME OUNDARY |
| in series with gen- erator | | | To control grid of 6BE | | O.OLMF Mica | Turn dial/tuning knob anti- clock- wise until perm. tuner iron cores |
| wi,th gen- erator | | | valve (pin | | in series | are out of the windings on coil |
| | | | No. 7) | | with gen- | formers and the unit is hard |
| Peak 1st IF. trans. pri. a sec. for max. output. | | | | | 9 | wire attached to valve socket. |
| sec. for max. output. | | | | | | Peak 1st IF. trans. pri. and |
| | | | | | | sec. for max. output. |

- Remove push-on type knob in centre of tuning knob. A piece of thin cord a convenient means of removing push-on type knobs. slid behind the knob in the form of a loop and pulled from the front is
- N and clear dial cover. Loosen the three 1/2" x 3/32" CSK Head screws fastening locating washer
- Ç against the stop. Turn perm tuner spindle fully anti-clockwise until the unit is hard
- Turn clear dial cover until centre of line on dial cover aligns with end of travel spot on dial reading near 1700 Kc/s.
- **ហ** , Tighten the three 3/32" screws then refit push-on type centre knob.

B/CAST ALIGNMENT

Operation Generator Generator Connection Frequency Antenna Dummy

Instructions

- To antenna on chassis junction lug 1000 Kc/s. 200MMF Mica generator capacitor in series with oscl. coil trimmer cond., then dial reading at 1000 Kc/s. Peak with centre of alignment spot or tuner until dial pointer aligns Turn tuning dial knob and perm. coil trim condenser. for max. output. Re-peak oscl. peak antenna con trimmer cond.
- 'n Check logging at each end of the dial. Tuning range after alignment 535-1640 Kc/s.
- Ģ Refit rear section of cabinet

