

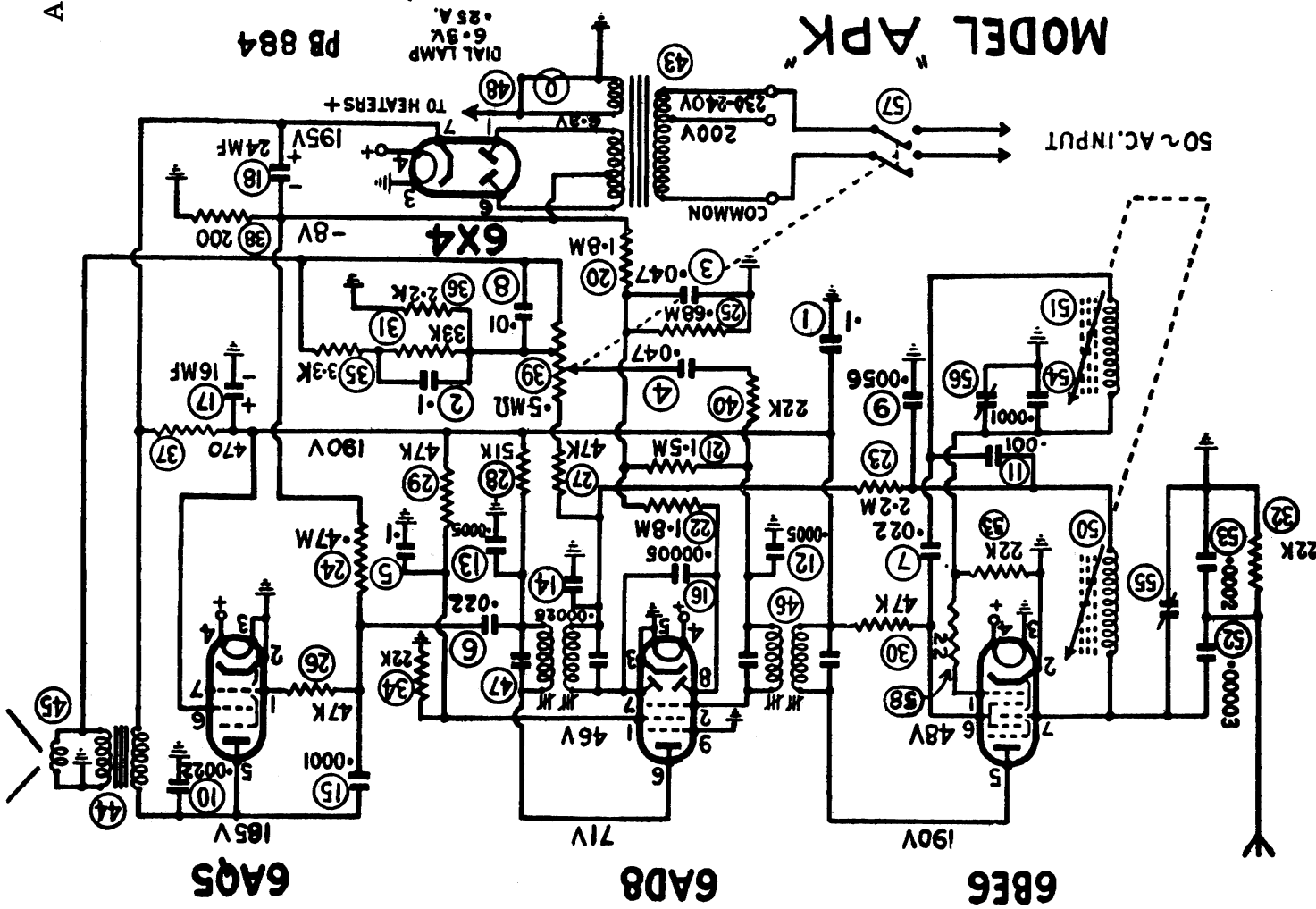
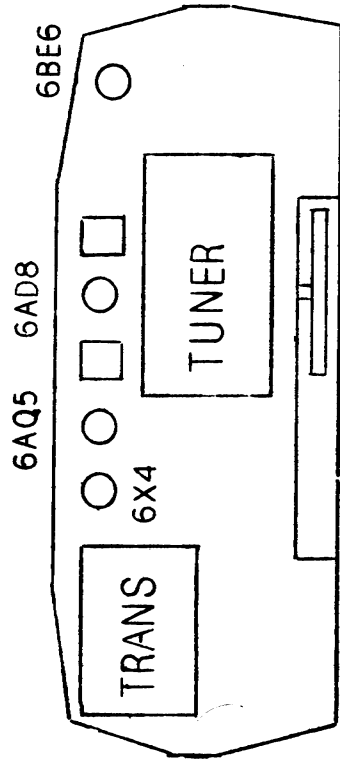
**MANTLE MODEL — APK**  
**4 VALVE SUPERHETERODYNE BROADCAST RECEIVER**

**FOR OPERATION FROM: —**

- 200-240 Volt 50 Cycle Supply Mains (Power Transformer PT938)
- Power Trans. Primary Mains Tap - common
- " " " - 200 Volt mains
- " " " - 230 & 240 Volt mains
- 230-250 Volt 40 & 50 Cycle Supply Mains (Power Transformer PT939)
- Power Trans. Primary Mains Tap - common
- " " " - 230 Volt mains.
- " " " - 250 Volt mains.

**POWER CONSUMPTION: —** 40 Watts approx.

**TUNING RANGE: —** 535-1640 Kc/s. : 560.7-182.9 Metres.



EQUIPMENT: ALIGNMENT CONDITIONS:

- |                  |                                  |  |
|------------------|----------------------------------|--|
| Signal Generator | Load impedance:                  | 5.500 ohms   |
| Output Meter:    | Output Level:                    | 50 Milliwatts  |
| Mica Capacitor:  | 0.01MF (for IF. trans.alignment) | Vol. Control: Max. Vol. fully clockwise                      |
| Dummy Antenna    | 200MMF Mica capacitor            | Input Voltage: 455 Kc/s.                                     |
| Alignment Tools: | Type M195 and PM561              | 230 Volt 50 Cycle AC. input to trans. 230-240 volt pri. tap. |

NOTE 1:

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 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 into a small hank.

NOTE 2:

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

NOTE 3:

Both iron cores in 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 spindle is turned fully anti-clockwise and the unit is hard against the stop.

If incorrect logging and misalignment 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 end of the iron core.

IF. TRANS. ALIGNMENT

Operation No.	Generator Connection	Generator Frequency	Dummy Antenna	Instructions
1.	To control grid of 6AD8 valve (pin No. 2)	455 Kc/s.	0.01MF Mica capacitor in series with generator	Leave grid wire attached to valve socket. Peak 2nd IF. trans. pri. and sec. for max. output.
2.	To control grid of 6BB6 valve (pin No. 7)	455 Kc/s.	0.01MF Mica capacitor in series with generator	Turn dial/tuning knob anti-clockwise until perm. tuner iron cores are out of the windings on coil formers and the unit is hard against the stop. Leave grid wire attached to valve socket. Peak 1st IF. trans. pri. and sec. for max. output.

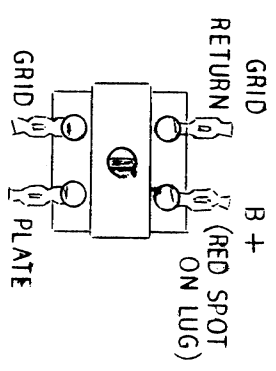
DIAL POINTER SETTING

- Remove push-on type knob in centre of tuning knob. A piece of thin cord slid behind the knob in the form of a loop and pulled from the front is a convenient means of removing push-on type knobs.
- Loosen the three 1/4" x 3/32" CSK Head screws fastening locking washer and clear dial cover.
- Turn perm tuner spindle fully anti-clockwise until the unit is hard against the stop.
- Turn clear dial cover until centre of line on dial cover aligns with end of travel spot on dial reading near 1700 Kc/s.
- Tighten the three 3/32" screws then refit push-on type centre knob.

B/CAST ALIGNMENT

- | Operation No. | Generator Connection               | Generator Frequency                    | Dummy Antenna                                  | Instructions  |
|---------------|------------------------------------|--|--|---|
| 1.            | To antenna junction lug on chassis | 1000 Kc/s.                             | 200MMF Mica capacitor in series with generator | Turn tuning dial knob and perm. tuner until dial pointer aligns with centre of alignment spot on dial reading at 1000 Kc/s. Peak osc1. coil trimmer cond., then peak antenna coil trimmer cond. for max. output. Re-peak osc1. coil trim condenser. |
| 2.            |                                    | Check logging at each end of the dial. |  | Tuning range after alignment 535-1640 Kc/s.   |
| 3.            |                                    |  |  | Refit rear section of cabinet   |

1ST I.F. TRANS.



2ND I.F. TRANS.

