

# TECHNICAL INFORMATION MODEL RBA

## 6 VALVE BROADCAST VIBRATOR 1951

DESIGNED AND MANUFACTURED

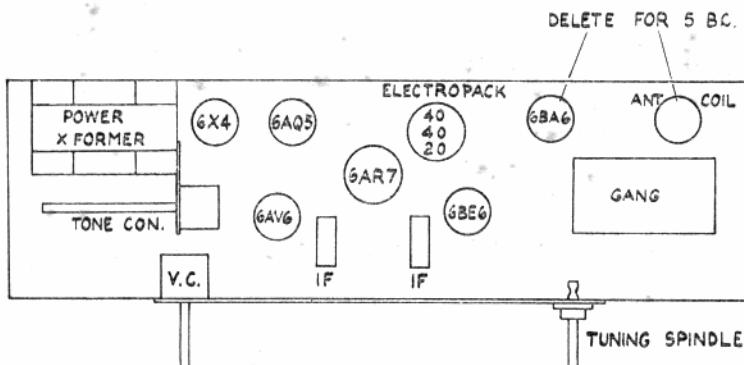
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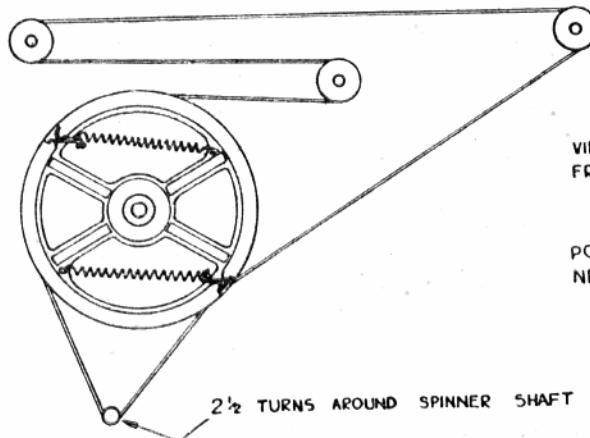
RADIO (1936) LTD.

|              |                    |  |                |                           |
|--------------|--------------------|--|----------------|---------------------------|
| Power Supply | 6v. Accumulator    |  | Drain          | A.Batt. 1.4 amps. PL's On |
| Tuning Range | 1600KC/S - 550KC/S |  | Speaker        | Rola 8H 10K ohms C.T.     |
|              |                    |  | Power Output   | 2 watts. approx.          |
|              |                    |  | I.F. Frequency | 460KC/S                   |

### CIRCUIT DESCRIPTION:

A type 1A4P valve, employed as a tuned R.F. Amplifier, is followed by a Type 1C7G valve, utilized as a Frequency changer, and is coupled to a Type 1A4P valve by means of a high gain double tuned intermediate frequency transformer. A similar transformer couples the type 1A4P valve to a type 1H6 valve, which combines the functions of detection and A.G.C. Source. The type 1H6 valve is capacitively coupled to a Type 1H4 valve utilized as a driver stage, which is transformer coupled to a Type 1J6 valve operating as a Class B Power Amplifier. A synchronous type vibrator reed, in conjunction with a power transformer, resistance and capacitive filter, supplies the high tension D.C. voltage.





**AMENDMENTS AND REMARKS:**

## VOLTAGES APPEARING BETWEEN VALVE PINS AND CHASSIS FRAME

| VALVE PIN No.      | 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8         |
|--------------------|------------|------------|------------|------------|------------|------------|------------|-----------|
| 1A4P R.F. Amp.     | 3.7v. D.C. | 155v. D.C. | 50v. D.C.  | 1.8v. D.C. | —          | —          | —          | —         |
| 1C7G Freq. Changer | —          | 1.8v. D.C. | 152v. D.C. | 65v. D.C.  | 6.2v. D.C. | 73v. D.C.  | —          | —         |
| 1A4P I.F. Amp      | 3.8v. D.C. | 140v. D.C. | 65v. D.C.  | 1.8v. D.C. | —          | —          | —          | —         |
| 1H6 Det.-A.F. Amp. | —          | —          | 50v. D.C.  | —6v. D.C.  | —          | —          | 1.8v. D.C. | 50v. D.C. |
| 1H4 Driver         | 6v. D.C.   | 5.7v. D.C. | 94v. D.C.  | —          | —          | —          | 3.8v. D.C. | —         |
| 1J6 Power Amp.     | 1v. D.C.   | 5.7v. D.C. | 155v. D.C. | —          | —          | 155v. D.C. | 3.7v. D.C. | 94v. D.C. |

NOTE: D.C. Readings taken with a Vacuum Tube Voltmeter.  
Receiver tuned off station.

## D.C. RESISTANCES

|                         |           |               |                |
|-------------------------|-----------|---------------|----------------|
| B.C. Ant. Coil Prim.    | 11ohms.   | I.F. Prim.    | 11.0ohms.      |
| B.C. Ant. Coil Sec.     | 3.5ohms.  | I.F. Sec.     | 11.0ohms.      |
| B.C. Det. Coil Prim.    | 10.0ohms. | P.X. Prim.    | .3 - .3ohms.   |
| B.C. Det. Coil Sec.     | 3.5ohms.  | P.X. Sec.     | 120 - 120ohms. |
| B.C. OSC. Coil Prim.    | .9ohms.   | O.X. Prim.    | 300 - 300ohms. |
| B.C. OSC. Coil Sec.     | 2.75ohms. | O.X. Sec.     | .4ohms.        |
| H.T. Hash Choke         | —         | 2.30hms.      |                |
| L.T. Hash Choke         | —         | .25ohms.      |                |
| L.T. Filter Choke       | —         | .5ohms.       |                |
| Interstage Xformer Prim | —         | 800ohms.      |                |
| Interstage Xformer Sec. | —         | 450 - 450ohms |                |

## ALIGNMENT INFORMATION:

Adjust Vol. Control for Max. Gain.

Adjust Signal Generator Output to no higher than necessary to obtain output meter readings.

| DUMMY ANT.   | Generator coupled to Grid 1A4P (I.F.) | Generator Freq. | Receiver Dial Setting                   | Adjust                                 | Approx. Sens. for 50MV. Output |
|--------------|---------------------------------------|-----------------|---|--|--------------------------------|
| .1ufd.       | Grid 1A4P (I.F.)                      | 460KC/S         | 550KC/S                                 | I <sub>6</sub> I <sub>7</sub> for Max. | 10K Microvolts                 |
| .1ufd.       | Grid 1C7G                             | 460KC/S         | 550KC/S                                 | I <sub>4</sub> I <sub>5</sub> for Max. | 120 Microvolts                 |
| RMA Standard | Ant.                                  | 1400KC/S        | OSC. Trimmer T3 for Max.                |  |                                |
| "            | "                                     | "               | ANT. & DET. Trimmers T1 and T2 for Max. |  | 12 Microvolts                  |
| "            | "                                     | 1000KC/S        | P1 for Max.                             |  | 12 Microvolts                  |
| "            | "                                     | 600KC/S         |   |  | 12 Microvolts                  |

