



# RCA Victor

## MODEL BP-10A PERSONAL RADIO

Four-Tube, Single-Band, Battery-Operated, Superheretodyne Receiver

## TECHNICAL INFORMATION AND SERVICE DATA

— 1945 No. 5 —

SERVICE DIVISION

RCA VICTOR COMPANY LIMITED

MONTREAL

### Electrical and Mechanical Specifications

FREQUENCY RANGE..... 540-1,600 kc

INTERMEDIATE FREQUENCY..... 455 kc

#### TUBE COMPLEMENT

- (1) Type-1R5..... 1st Det.—Osc.  
 (2) Type-1T4..... I-F Amplifier  
 (3) Type-1S5..... 2nd Det., A-F, and A.V.C.  
 (4) Type-1S4..... Power Output

Battery Supply      Current Consumption  
 "A"—1.5 volt }  
 Eveready No. 950 } 0.25 amperes  
 "B"—67.5 volts }  
 Eveready No. 467 } 8.5 milliamperes

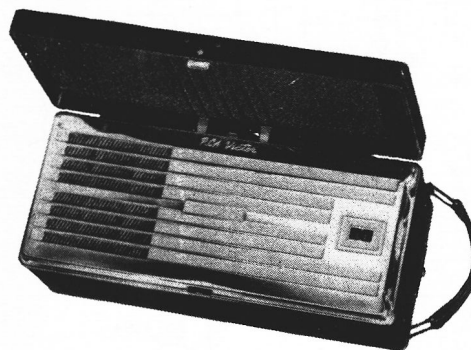
#### POWER OUTPUT

Undistorted..... 0.05 watts  
 Maximum..... 0.12 watts

#### LOUDSPEAKER

Type..... 3-inch permanent-magnet dynamic  
 V.C. Impedance..... 3 ohms at 400 cycles

Height      Width      Depth  
 Cabinet Dimensions (inches)..... 3      8 $\frac{1}{2}$       3 $\frac{1}{2}$   
 Weight..... 3 $\frac{1}{2}$  lbs. (net)      4 $\frac{1}{2}$  lbs. (shipping)  
 Tuning Drive Ratio..... 1 to 1



## REPLACEMENT PARTS FOR MODEL BP-10A

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

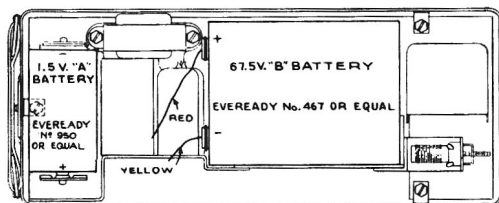
| STOCK NO.                  | DESCRIPTION                                      | LIST PRICE | STOCK NO.                       | DESCRIPTION                                                | LIST PRICE |
|----------------------------|--------------------------------------------------|------------|---------------------------------|------------------------------------------------------------|------------|
| <b>RECEIVER ASSEMBLIES</b> |                                                  |            | 36498                           | Transformer-1st I.F.(L4,L5,C8,C9)..                        |            |
| 36717                      | Capacitor-20 mmfd.Temp.Comp.(C13).               |            | 36499                           | Transformer-2nd I.F.(L6,L7,C11,C12)                        |            |
| 36715                      | Capacitor-50 mmfd. " " (C3,C16)                  |            | <b>SPEAKER ASSEMBLIES</b>       |                                                            |            |
| 36716                      | Capacitor-100 " " " (C13).                       |            | 39467                           | Cone-Speaker cone.....                                     |            |
| 12488                      | Capacitor-270 " " " (C4)..                       |            | 36504                           | 3" P.M.Speaker,less output trans-<br>former.....           |            |
| 36163                      | Capacitor-.001 mfd. (C14,C19).....               |            | 36505                           | Transformer-Output T-1.....                                |            |
| 33584                      | Capacitor-.005 " (C20).....                      |            | <b>MISCELLANEOUS ASSEMBLIES</b> |                                                            |            |
| 36248                      | Capacitor-.02 " (C10-C15).....                   |            | 38204                           | Antenna-Loop antenna and cover.....                        |            |
| 32787                      | Capacitor-.05 " (C7).....                        |            | 36507                           | Bottom-Receiver case bottom.....                           |            |
| 36718                      | Capacitor-Electrolytic 10 mfd.(C17)              |            | 36508                           | Centre-Receiver centre strip.....                          |            |
| 36496                      | Condenser-Variable tuning(C1,C6)..               |            | 37179                           | Clip-"B" Battery Clip.....                                 |            |
| 36497                      | Coil-Oscillator (L2,L3).....                     |            | 37180                           | Clip-"B" " ".....                                          |            |
| 36495                      | Control-Volume control (R6).....                 |            | 38207                           | Connector-Loop contact .....                               |            |
| 36606                      | Core-Adjustable core and stud,Osc.<br>coil ..... |            | 36509                           | Handle-Carrying handle and bracket.                        |            |
| 36503                      | Holder-Battery holder complete....               |            | 37857                           | Hinge pins and hinge springs(1 set)                        |            |
| 36501                      | Knob-Tuning disc .....                           |            | 37156                           | Latch-Bottom latch and rivets.....                         |            |
| 36502                      | Knob-Volume knob.....                            |            | 38205                           | Latch-Top Latch and rivets.....                            |            |
| 30158                      | Resistor-820 ohms - 1/4 watt (R9).               |            | 37835                           | Lid and antenna with antenna cover<br>and lid support..... |            |
| 36714                      | Resistor-15,000 ohms-1/4 " (R2).                 |            | S-3068                          | Lid-Lid only with lid support.....                         |            |
| 14983                      | Resistor-47,000 " -1/4 " (R5).                   |            | 37854                           | Panel-Control panel.....                                   |            |
| 3252                       | Resistor-100,000 " -1/4 " (R1).                  |            | S-3063                          | Rivet-Hinge rivet (Pkg.25).....                            |            |
| 30652                      | Resistor-1 Megohm -1/4 " (R7).                   |            | 37811                           | Support-lid support .....                                  |            |
| 31417                      | Resistor-3.3 " -1/4 "(R3-R10)                    |            |                                 |                                                            |            |
| 30931                      | Resistor-4.7 " -1/4 " (R8).                      |            |                                 |                                                            |            |
| 30992                      | Resistor-10. " -1/4 " (R4).                      |            |                                 |                                                            |            |
| 36500                      | Socket-Tube socket.....                          |            |                                 |                                                            |            |
| S-3041                     | Socket-Cushion tube socket.....                  |            |                                 |                                                            |            |
| 36069                      | Socket-IT4-Shield tube socket.....               |            |                                 |                                                            |            |
| 36506                      | Switch-Power Switch.....                         |            |                                 |                                                            |            |

All prices and parts are subject to change or withdrawal without notice.

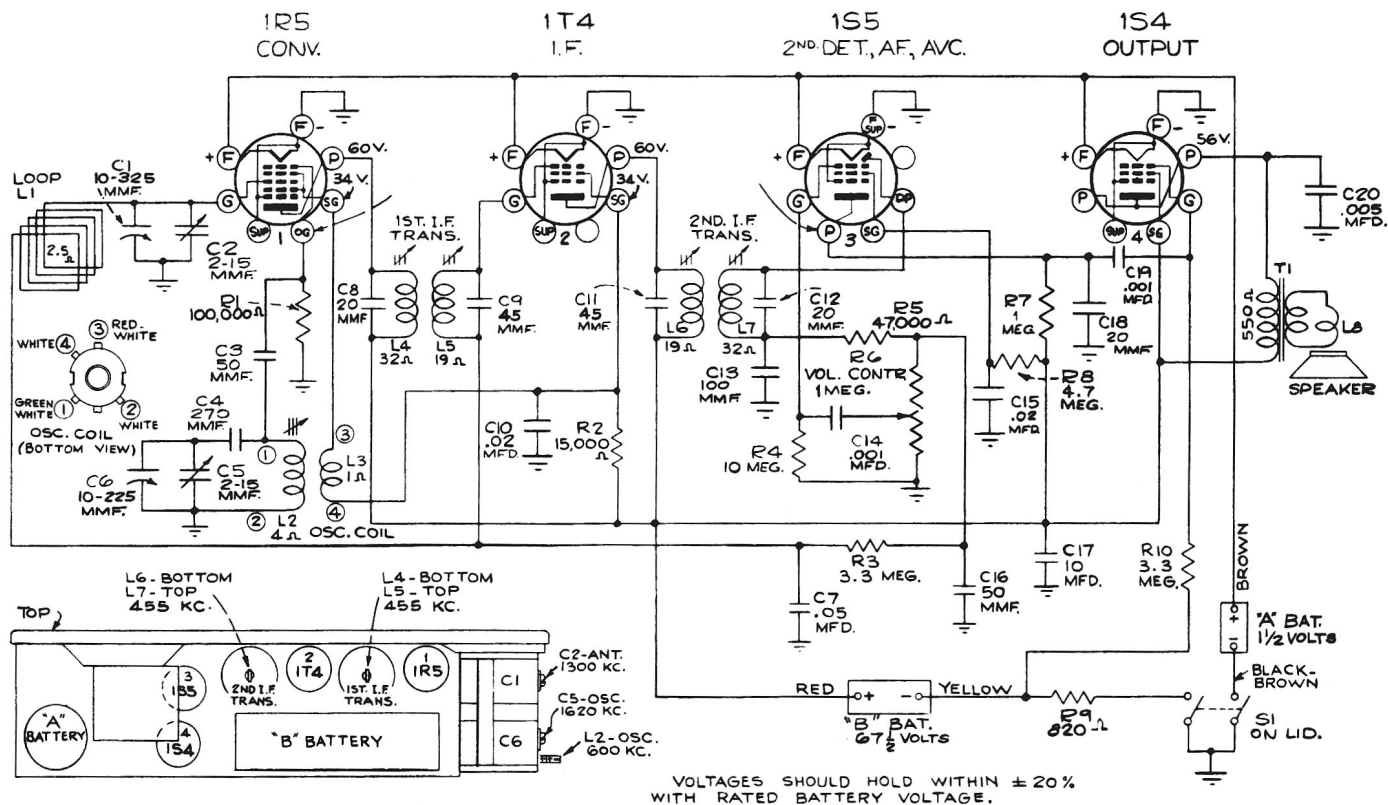
## Alignment Procedure

**Output Meter Alignment.**—If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

**Test-Oscillator.**—For all alignment operations, keep the output as low as possible to avoid a-v-c action.



| Steps | Connect the high side of test-osc. to—                 | Tune test-osc. to— | Turn radio dial to—                 | Adjust the following for max. peak output—    |
|-------|--------------------------------------------------------|--------------------|-------------------------------------|-----------------------------------------------|
| 1     | Tuning condenser stator (ant.) in series with .01 mfd. | 455 kc             | Quiet point at 1,600 kc end of dial | L7, L6, L5, L4 (2nd and 1st I-F transformers) |
| 2     | Radiated signal 1,620 kc                               | 1,620 kc           | Full clockwise (out of mesh)        | C5 (oscillator)                               |
| 3     | Radiated signal 1,300 kc                               | 1,300 kc           | 1,300 kc                            | C2 (antenna)                                  |
| 4     | Radiated signal 600 kc                                 | 600 kc             | 600 kc                              | L2 (osc.)                                     |
| 5     | Repeat steps 2, 3 and 4.                               |                    |                                     |                                               |

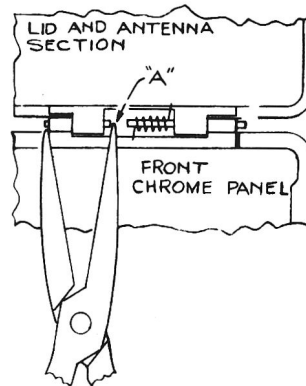


Model BP-10 Schematic Diagram

## Installation instructions for lid or control Panel

First remove the three self-tapping screws that hold the chassis in the centre case, and remove the case. Unsolder the leads from the loop lugs.

- With lid closed, cut hinge pins at point "A" with sharp cutters.
- Start removal of pin sections as shown, using long-nose pliers.
- Grasp end of pin section with long-nose pliers and pull out of hinge.
- Install new lid, or new front panel, using replacement hinge pins and springs. Arrange springs as shown. Apply a small amount of cement near outer end of each pin to insure tight and permanent fit.



Replacing Lid or Control Panel