RCA Victor

MODEL BP6

Portable 6 Tube Single Band AC-DC Superheterodyne

TECHNICAL INFORMATION AND SERVICE DATA

1947 No. 4

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL

Electrical and Mechanical Specifications

Frequency Range .....540-1600 Kcs.

TUBE COMPLEMENT

(1) 1T4 .....R.F.
(2) 1R5 .....Converter
(3) 1T4 .....I.F. Amplifier
(4) 1S5 .....2nd Det. AVC & A.F. Amplifier
(5) 3Q4 .....Power Output
(6) 117Z3 .....Rectifier

LOUDSPEAKER

Type .....4" x 6" Elliptical P.M.
V.C. Impedance .....3.4 Ohms at 400 Cycles

Intermediate Frequency .....455 Kcs.

CURRENT CONSUMPTION

Battery Operation "A".....50 MA.
"B".....13 MA.
Total Rect. Current .....61 MA.

POWER OUTPUT

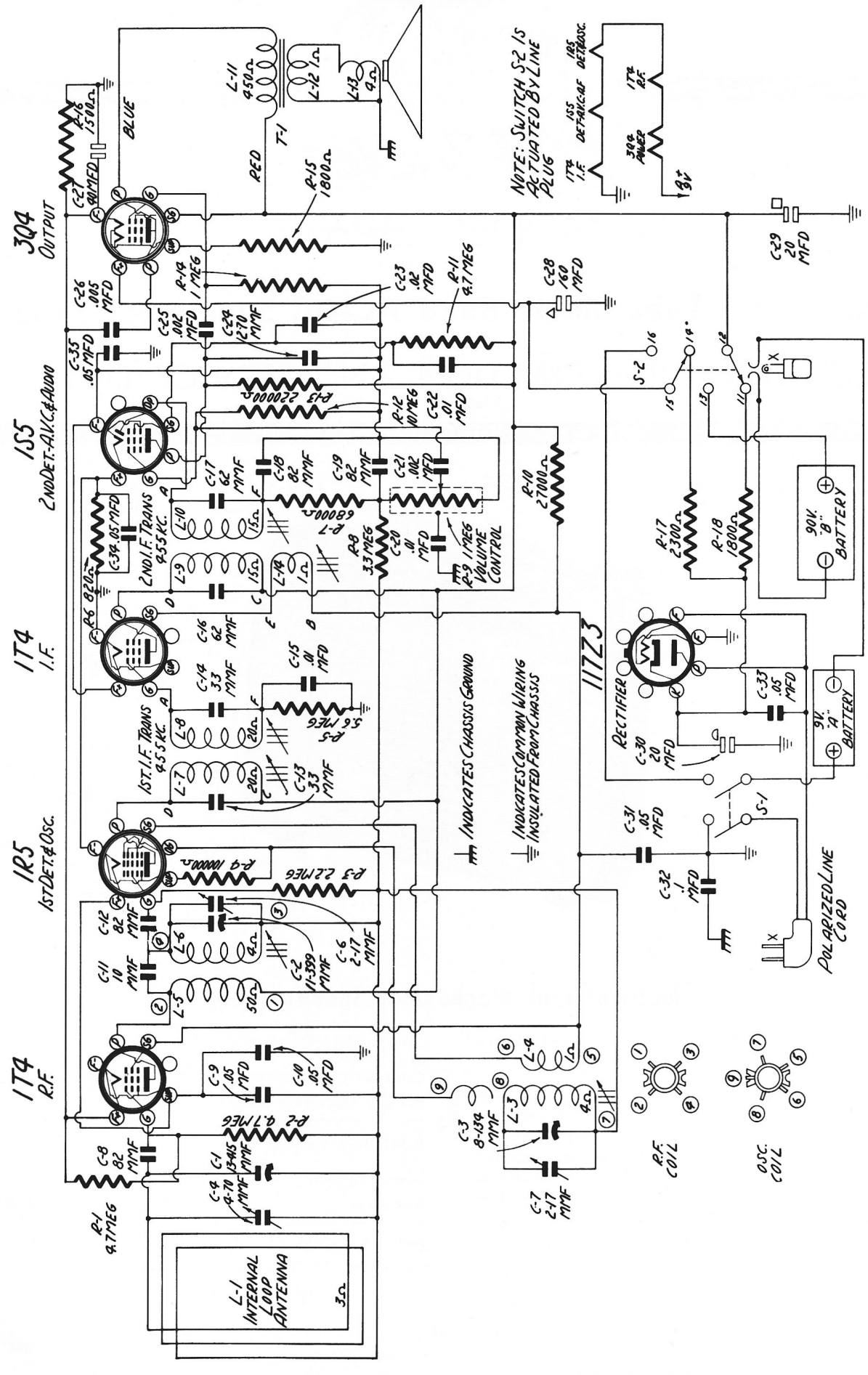
Maximum ..... .23 Watt

BATTERY REQUIRED

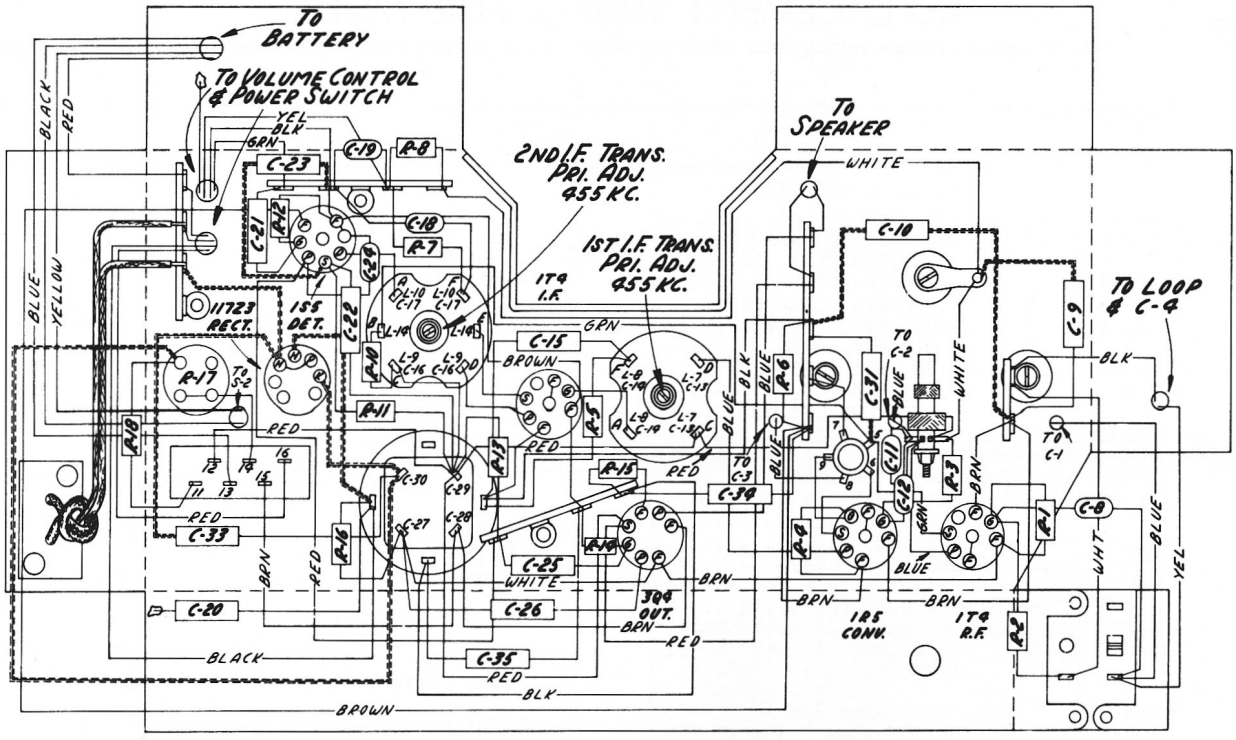
One Eveready Pack No. X340

CABINET DIMENSIONS

Height ..... 13¼ In.
Width ..... 9½ In.
Depth ..... 5½ In.



Schematic Diagram



Chassis Wiring Diagram

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, connect the low side of the test oscillator to the receiver chassis and keep the oscillator output as low as possible to avoid AVC action.

Calibration Scale.—The calibrated dial scale is permanently connected to chassis. It can therefore be used directly as a reference for alignment.

With the gang at full mesh set the dial pointer so that the left hand edge of the pointer is 19/32 inches to the right of the point indicated in the dial cord drawing.

Steps	Connect the high side of test oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output
1	High side of loop (blue lead) in series with .1 Mfd	455 kc	Gang at max. cap.	L9 - L10 2nd I.F. Trans.
2				L7 - L8 1st I.F. Trans.
3	High side of loop (blue lead) in series with .1 Mfd. Bottom shield in place.	1300 kc	1300 kc	C7 (Osc.) C6 (RF)
4		600 kc	600 kc	L3 (Osc.) L6 (RF)
5	220 Mmf. in series with a single turn loop 4 x 8". Approx. 3 in. from receiver loop. Chassis in cabinet. C4 connected and lid closed.	1300 kc	1300 kc	C4 loop

AC-DC Operation.—

This receiver will operate on 105 to 125 volts, AC 50 or 60 cycles, or DC.

A power cord is stored in the fiber tube which is clamped above the chassis inside the cabinet. To open the cabinet, slide the two plastic feet in the rear of the cabinet toward each other, and raise the back cover upward on its hinges. Then pull the power cord plug out of the socket on the top of the chassis as shown, and take out and unroll the power cord. A slot in the bottom of the cabinet allows the closing of the cabinet with the power cord passing through. Close the cabinet with the cord extending through the slot and insert the plug into a convenient electrical outlet.

When returning to battery operation, be sure to replace the power plug in its socket inside the case with the cord stored in the fiber tube.

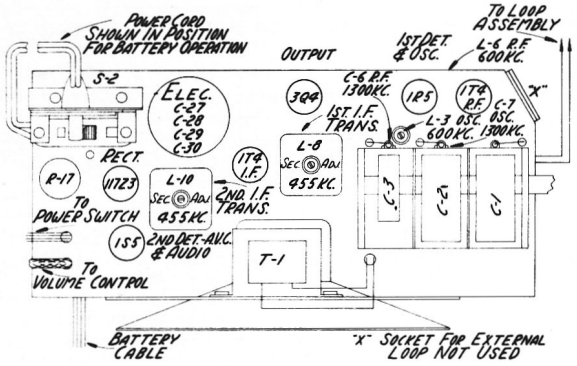
CRITICAL LEAD DRESS

1. Dress all filament leads next to chassis.
2. Keep the leads short on the ends of the three components which connect to the grid terminal (#6) of the r.f. socket. (R-1, R-2, C 8).
3. Separate leads to front and center sections of gang as far as possible and away from tubes.
4. Dress loop leads away from tuning drum and battery.
5. Dress output transformer leads away from rear section of gang.
6. Dress r.f. plate lead away from r.f. grid circuit.
7. Dress components and wiring near external loop socket to clear external loop pins.
8. Dress avc lead away from 2nd IF transformer and associated components.
9. Dress converter plate lead away from chassis and away from output twisted leads.
10. Dress twisted output leads up and away from other wiring.
11. Dress volume control cable, switch cable, and line receptacle leads away from rectifier tube and resistor case.
12. Dress 1st audio plate lead up and away from other wiring.
13. Do not restrict floating action of sockets by tight wiring.

CAUTION.—

1. **Do not remove any tubes from the chassis with the set operating and the plug connected to the power line. Damage to tubes may result.**
2. **When cleaning the aluminum portion of the case use soap and water or cleaning fluid. Do not use abrasive cleansers.**

NOTE.—If reception is not obtained on DC, reverse plug in outlet receptacle. This may also reduce hum on AC operation.



Chassis Layout

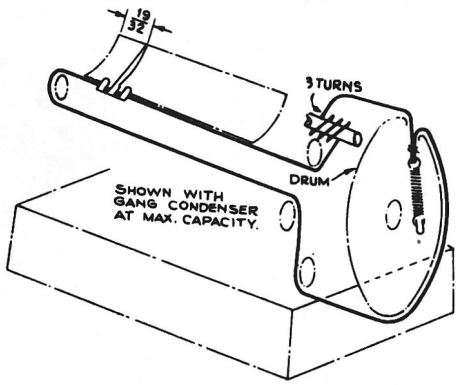
REPLACEMENT PARTS FOR MODEL

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

STOCK NO.	DESCRIPTION
	SPEAKER ASSEMBLIES
39043	Capacitor-Ceramic-10 Mmf. (C11)..
71514	" -Ceramic-82 Mmfd.(C8, C12,C18,C19).....
71540	" -Ceramic-270 Mmfd.(C24).
36854	" -.002 Mfd. (C21,C25)....
33584	" -.005 Mfd. (C26).....
4937	" -.01 Mfd.(C15,C20,C22).
31796	" -.02 Mfd.(C23).....
32787	" -.05 Mfd.(C9,C10,C31, C33,C34,C35).....
4839	" -.1 Mfd. (C32).....
71035	Condenser-Variable(C1,C2,C3,C6,C7)
37961	Condenser-Adjustable (C4).....
71043	Capacitor-Electrolytic (C27,C28, C29,C30).....
71402	Coil-R.F. (L5,L6).....
71401	Coil-Oscillator-(L3,L4).....
71030	Indicator-Station selector pointer
71079	Loop-Antenna loop (L1).....
14076	Resistor-820 ohms 1/4 watt (R6)..
30654	" -1500 ohms 1/4 watt(R16).
12194	" -1800 ohms 1/4 watt(R15, R18)...
30409	" -27000 ohms 1/4 watt(R10)
14138	" -68,000 ohms 1/4 watt (R7)
3252	" -100,000 ohms 1/4 watt(R4)
14583	" -220,000 ohms 1/4 watt(R13)
30652	" -1 Megohm 1/4 watt (R14).
30649	" -2.2 " 1/4 watt (R3)..
31417	" -3.3 " 1/4 watt (R8)..
30931	" -4.7 " 1/4 watt (R1, R2,R11)...
31455	" -5.6 " 1/4 watt (R5)..
30992	" -10 " 1/4 watt (R12).
71038	" -2300 ohms 6 watt (R17) (ballast).....
71037	Socket-tube socket(rubber moulded)
71827	" -tube socket.....
71055	Shaft-Drive shaft.....
70390	Spring-Drive cord tension(Pkg.2).
S-3585	Switch assembly (S2).....
71045	Switch (power switch - S1).....
71397	Transformer I.F.1st(L7,L8,C13, C14).....
71400	Transformer I.F.2nd(L9,L10,L14, C16,C17).....
71057	Volume Control-1 megohm (R9).....

STOCK NO.	DESCRIPTION
	RECEIVER ASSEMBLIES
S-3556	Dust Cap (Pkg.3).....
S-3516	Cone-Cone and Voice Coil Assy.(L13)
S-3580	Speaker.....
S-3583	Transformer-Output (T1) (L11,L12)..
	MISCELLANEOUS ASSEMBLIES
71074	Arm-Shutter arm lever.....
S-3740	Battery plug and cable.....
71044	Bracket-Power switch bracket less switch.....
71060	Back-Case back complete with center strip.....
32634	Cord-Drive cord - universal.....
71080	Clip-Case side spring clip & screw (2 req'd).....
71067	Front-case front complete less shutter.....
71068	Foot-Case foot (wood).....
71063	Handle assembly.....
71052	Knob assembly.....
71041	Plugs-4 prong for battery cable....
70392	Power Cord.....
71071	Shutter-Case shutter.....
S-4041	Scale-Dial scale.....
71072	Spring-Case shutter compression spring.....
71075	Side-Case side (RH) less capacitor assembly.....
71076	Side-Case side (LH).....
71077	Screw-Screw complete with washer & nut to secure one side to case front or case latch (Pkg.5).....
S-3741	Volume Control Cable.....
71078	Washer-Dampening washer for shutter shaft (Pkg.10).....
31608	Washer-"C" washer for case shutter (Pkg.10).....
71049	Window-Dial window.....

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



Dial Cord