



MODEL BP5D



RCA VICTOR



AC-DC BATTERY PORTABLE RECEIVER

MODEL BP5D

SERVICE DATA

—1950 No. 14—

GENERAL SERVICE DIVISION
RCA VICTOR COMPANY LIMITED
MONTREAL, QUE.

Electrical and Mechanical Specifications

Tuning Range540-1,600 kc

Intermediate Frequency455 kc

Tube Complement

(1) 1R5 Converter

(2) 1U4 I.F.

(3) 1U5 Det.—A.V.C.—A.F.

(4) 3V4 Output

Rectifier A Selenium Rectifier is used

Power Supply Rating

Power line operation

117 volts d.c. or 25 to 60 cycles a.c.20 watts
or

Battery operation

1 Eveready 755 Battery Pack

(Battery life—approx. 100 hrs. intermittent service)

Power Output

A.C. operation15 MW undistorted, .25 MW max.

Battery operation (Output is slightly lower)

Loudspeaker

Size and type4 in. P.M. Dynamic

Voice coil impedance3.4 Ohms at 400 cycles

Dial Drive Ratio8:1 (4 turns of knob)

Cabinet Dimensions

Height 9 inches Width 11 inches Depth 5¼ inches

Weight5 lbs. (less batteries)

AC-DC Operation

A power cord is stored inside the cabinet. To open the cabinet, pull backwards on the top of the cabinet back. It is secured by means of two spring clips and catches on the inside of the cabinet. Remove the plug of the power cord from its socket on the chassis and insert the plug into a convenient electrical power outlet. A notch in the right side of the cabinet allows the back to be closed with the cord passing through.

Notes: 1. Maximum performance is obtained with the battery in place. Receiver sensitivity will be lowered if the battery is not in place during AC-DC operation since the battery affects the loop inductance.

2. If reception is not obtained on DC, reverse plug in power outlet. On AC operation, reversal of the plug may reduce hum.

To Remove Carrying Handle

- (1) Rotate links by 180° when strap is laying flat on cabinet.
- (2) Remove strap from open end of link.

Battery Operation

Replace the power cord plug in the socket provided on the back of the chassis. Coil up the power cord and place it alongside of the battery. Make certain that it will not interfere with the tuning condenser.

Note: Make certain that the plug is fully inserted (base of plug touching chassis) to assure proper operation of the Batt-Line switch.

Cabinet Back and Hinges

Insert a screwdriver under one hinge and pry the centre of the hinge out of the opening in the cabinet while maintaining pressure on the back with the fingers and on the cabinet with the thumb. Repeat this procedure with the other hinge. Pull the back straight to the rear using both hands.

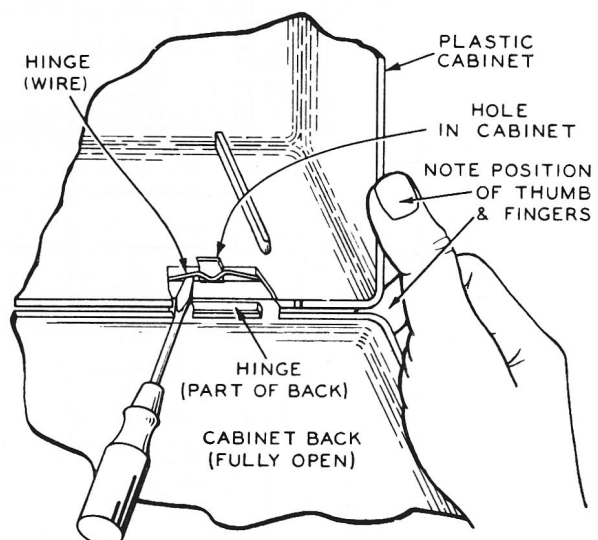


Fig. 1—Removal of Cabinet Back

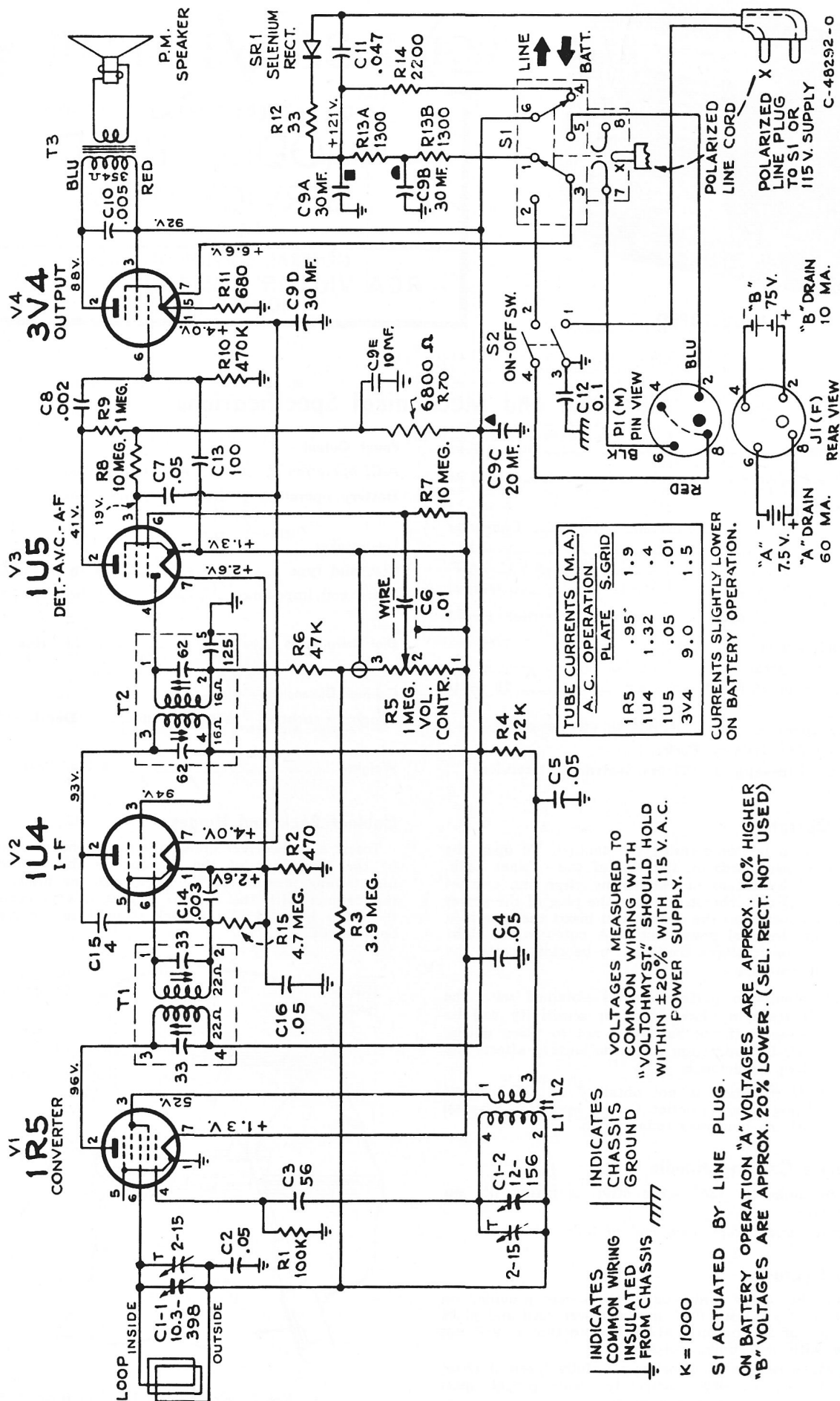


FIG 2. SCHEMATIC DIAGRAM

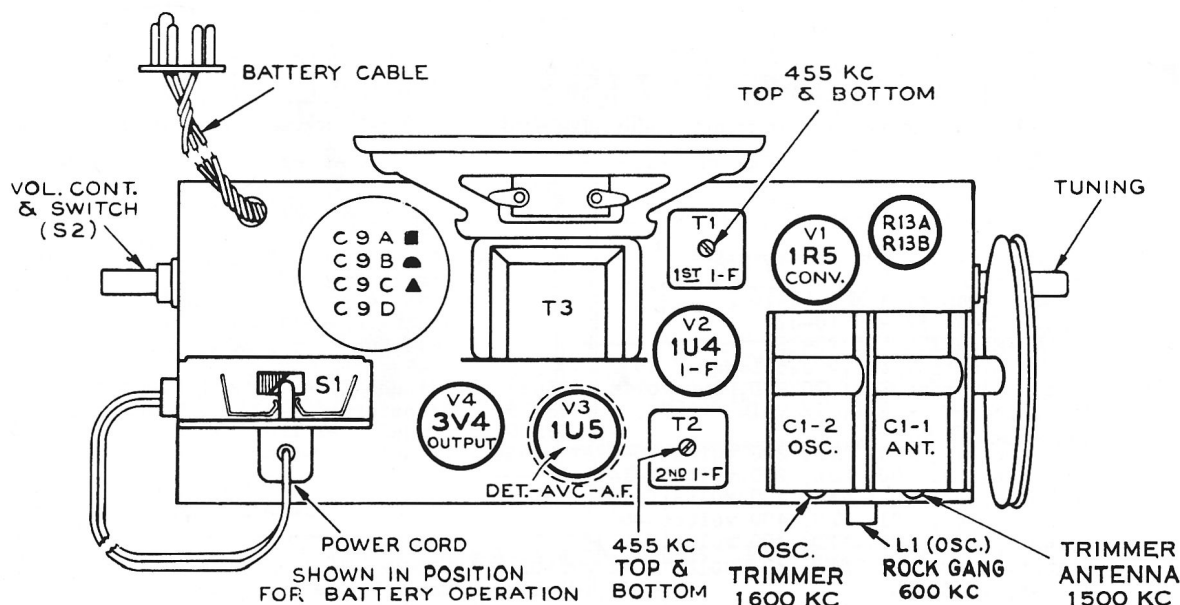


Fig. 3—Chassis Layout and Alignment Adjustment

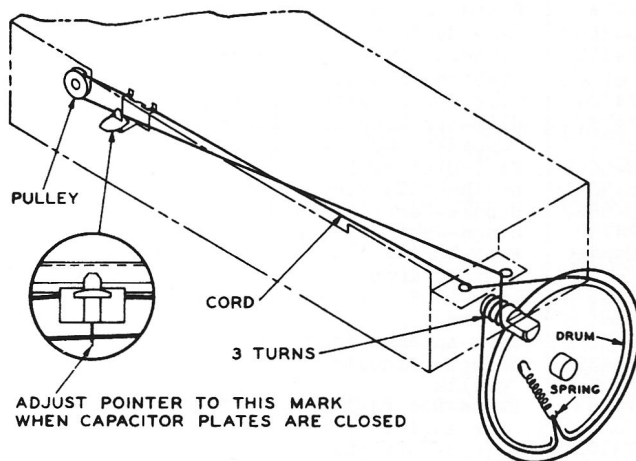


Fig. 4—Dial Cord Stringing

Critical Lead Dress

- (1) Dress antenna leads away from trimmer adjustments.
- (2) Dress all capacitors down against chassis.
- (3) Locate capacitor (C-15) down against the .003 mfd capacitor (C-14).
- (4) Dress output transformer primary leads against chassis.
- (5) Dress power cord leads away from selenium rectifier.
- (6) Dress capacitor C-4 to clear dial pointer.

Alignment Procedure

Signal Generator—For all alignment operations, connect the low side of the signal generator to the receiver chassis and keep the output as low as possible to avoid AVC action.

Battery operation of the receiver is preferable during alignment; on a. c. operation an isolation transformer (117v./117v.) may be necessary for the receiver if the

signal generator is also a. c. operated.

Note: Battery must be in place for ant. alignment (step 3).

Dial Pointer Position.—With the tuning condenser fully meshed the center of the dial pointer should be in line with the score mark on the chassis.

| Order Of Alignment | | TEST OSCILLATOR | | | | RECEIVER | | | | |
|--------------------|---|-------------------------|----------------------|---------------|-------------------|----------------|------------------|-----------------------|------------------------|-----------|
| | | Connect "HI" Side to | Connect "LO" Side to | Dummy Antenna | Frequency Setting | Range Selector | Dial Setting | Circuit to Adjust | Adjustment Symbols | Notes |
| I.F. Alignment | 1 | C-1-2 Gang | Common GND | 39MMF | 455KC | | 1600KC | 1st.&2nd. I.F. Trans. | T-1 & T-2 Top & Bottom | Max. Out. |
| | 2 | Radiate Signal | | | 1600KC | | R.H.Side of Dial | Osc. | C1-2 Trimmer | Max. Out. |
| R.F. Alignment | 3 | Same | | | 1500KC | | 1500KC | Ant. | C1-1 Trimmer | Max. Out. |
| | 4 | Same | | | 600KC | | 600KC | Osc. | L-2 Rock Gang | Max. Out. |
| | 5 | Repeat steps 2,3 and 4. | | | | | | | | |

REPLACEMENT PARTS FOR MODEL BP5D

Insist on Genuine Factory Tested Parts, which are readily identified and may be purchased from Authorized Dealers.

| STOCK NO. | DESCRIPTION | STOCK NO. | DESCRIPTION |
|-----------|--|---------------------------------|--|
| *S-5670 | Capacitor-Variable tuning capacitor (C1-1, C1-2) | | Resistor-470,000 ohms, 20% 1/2 watt (R-10) |
| *73153 | Capacitor-Ceramic, 4 MMF (C-15) | | Resistor-1 megohm 20%, 1/2 watt (R-9) |
| *39622 | Capacitor-Mica, 56 MMF (C-3) | | Resistor-3.9 megohm 10%, 1/2 watt (R-3) |
| 39628 | Capacitor-Mica, 100 MMF (C-13) | | Resistor-4.7 megohm 20%, 1/2 watt (R-15) |
| *S-5668 | Capacitor-Electrolytic, 2 sections of 30 MFD 150V, 1 section of 20 MFD, 150 volts & 1 section of 30 MFD, 25 volts (C-9A, C-9B, C-9C, C-9D) | 71039 | Switch-"Line-Battery" (S-1) |
| | Capacitor-paper, .002 MFD, 200 volts (C-8) | 73129 | Transformer-1st, I.F. Transformer (T-1) |
| | Capacitor-paper, .003 MFD, 200 volts (C-14) | 73130 | Transformer-2nd, I.F. Transformer (T-2) |
| | Capacitor-paper, .005 MFD, 400 volts (C-10) | *S-5666 | Transformer-Output transformer (T-3) |
| | Capacitor-paper, .01 MFD, 400 volts (C-6) | SPEAKER ASSEMBLY | |
| | Capacitor-paper, .047 MFD, 400 volts (C-11) | *S-5829 | Speaker-4" P.M. Speaker |
| | Capacitor-paper, .05 MFD, 400 volts (C-2, C-4, C-5, C-7, C-16) | *S-5575 | Cone-Cone & voice coil assy. |
| S-3221 | Capacitor-paper, .1 MFD, 400 volts (C-12) | MISCELLANEOUS ASSEMBLIES | |
| *S-5671 | Capacitor-Electrolytic, 10 MFD (C-9E) | | |
| *73275 | Coil-Oscillator coil (L-1, L-2) | *74787 | Board-Terminal board-2 contact |
| | Connector-5 contact male connector for battery cable | *S-5659 | Case-Cabinet |
| *S-5667 | Control-Volume control and power switch (R-5, S-2) | *74339 | Catch-Cabinet back catch part of Cabinet front) |
| 71457 | Cord-Power cord and plug | *74734 | Clip-Spring clip for knob |
| *S-4313 | Cord-Dial drive cord (standard) | *74792 | Clip-Striking clip for catch (part of Cabinet back) 2 required |
| 72283 | Grommet-Rubber grommet to mount tuning condenser | *S-5662 | Dial-Dial scale |
| *74838 | Grommet-Power cord strain relief grommet (1 set) | *S-5661 | Emblem-"RCA Victor" emblem |
| *S-5669 | Indicator-Station selector indicator | *S-5663 | Handle-Carrying handle |
| 74322 | Rectifier-Selenium rectifier (SR-1) | *74790 | Hinge-Cabinet hinge (2 required) |
| *73237 | Resistor-Wire wound (fuse type) 33 ohms (R-12) | *S-5660 | Knob-Tuning or volume control & power switch knob. |
| *75148 | Resistor-Ceramic, 2600 ohms, tapped at 1300 ohms, 10 watts (R-13A, R-13B) | *S-5664 | Link-Link for carrying handle (2 required) |
| | Resistor-470 ohms, 20% 1/2 watt (R-2) | *S-5665 | Loop-Antenna loop winding |
| | Resistor-680 ohms, 20% 1/2 watt (R-11) | *75435 | Screen-Crinoline screen for speaker grille |
| | Resistor-2200 ohms, 10% 1/2 watt (R-14) | *74783 | Plate-Decorative plate (satin finish) for cabinet (above dial) |
| | Resistor-6800 ohms, 20% 1/2 watt (R-70) | *73103 | Shield-Tube shield for 1U5 tube |
| | Resistor-22,000 ohms, 20% 1/2 watt (R-4) | | |
| | Resistor-47,000 ohms, 20% 1/2 watt (R-6) | | |
| | Resistor-100,000 ohms, 20% 1/2 watt (R-1) | | |
| | | * Indicates new stock items. | |

Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.