

electrophone stereo



# RCA VICTOR



## "VICTROLA"® SERVICE DATA

—File: 1962 No. 12—

Model 3-VC-35—The "Impresario"  
Green and Gray

### Model 3-VC-35

Chassis No. RS-175C

Record Changer RP-216-B2

### RCA SALES CORPORATION

A RADIO CORPORATION OF AMERICA SUBSIDIARY  
600 NORTH SHERMAN DRIVE  
INDIANAPOLIS 1, INDIANA

### SPECIFICATIONS

#### TUBE COMPLEMENT

- (V1) RCA 12AX7 .....Left and Right Chan. A.F. Amp.
  - (V2) RCA 50EH5 .....Left Channel Output
  - (V3) RCA 50EH5 .....Right Channel Output
- A Silicon rectifier is used.

MUSIC POWER OUTPUT .....5 watts maximum

#### LOUDSPEAKERS

One 6½" PM "Duo-Cone" (each side) ..3.2 ohm impedance

#### POWER SUPPLY RATING

107-120 volts, 60 cycles .....50 watts

WEIGHT .....Approx. 26 lbs. net

#### RECORD CHANGER (RP-216-B2)

- Turntable speed .....16⅔, 33⅓, 45, 78 r.p.m.
- Record capacity .....Up to fifteen 7 inch  
or twelve 10 inch  
or ten 12 inch  
or ten 10 inch and 12 inch intermixed
- Pickup (Stock No. 110021) .....Ceramic Stereophonic
- Stylus (Stock No. 110020) ....0.7 mil and 3 mil Synth. Sapp.

#### DIMENSIONS

	Height	Width	Depth
Side speakers closed	10¼"	26⅜"	13⅞"
Side speakers open	10¼"	45⅞"	18"
Side speaker removed	10¼"	18⅞"	13⅞"

### DESCRIPTION

Model 3-VC-35 is a portable stereophonic record player. It is a complete stereophonic record playing system consisting of a record changer, a dual-channel amplifier and two speakers housed in a three piece luggage-type cabinet. The record changer and amplifier are housed in the main cabinet and a 6½" P.M. "Duo-Cone" speaker and its connecting cable is housed in each of the two side swing-out units. When carrying, the two swing-out units are latched against the sides of the main unit. When operating, the swing-out units are unlatched and swung out from the sides of the main unit. Should greater stereophonic effect be desired, the swing-out units may be lifted off the main unit (split hinges) and placed at a distance from it.

The four-speed automatic record changer (RP-216-B2) is equipped with a stereophonic ceramic pick up embodying a dual styli "slip-in" assembly containing a 0.7 mil "MG" and a 3 mil "78" synthetic sapphire stylus. The switch on the record changer controls the power to both the changer and the

amplifier, thus providing for instrument shut off after the last record has been played. The dual channel amplifier (RS-175C) utilizes three tubes and a silicon rectifier, and is designed for operation on 107-120 volt, 60 cycle power source. Three controls - VOLUME, TONE, and BALANCE - are provided for the regulation of the instrument.

#### SUPPLEMENTARY INFORMATION LISTINGS

Vol.	Issue	Subject

1962 No.

## CIRCUIT OPERATION

Each channel of the dual-channel amplifier uses one-half of the 12AX7 tube as an AF amplifier, and one of the 50EH5 tubes as a power amplifier. The Volume and Tone controls are dual section potentiometers; one section of each control is connected in each channel, thus providing simultaneous regulation of the two channels. The Balance control is a

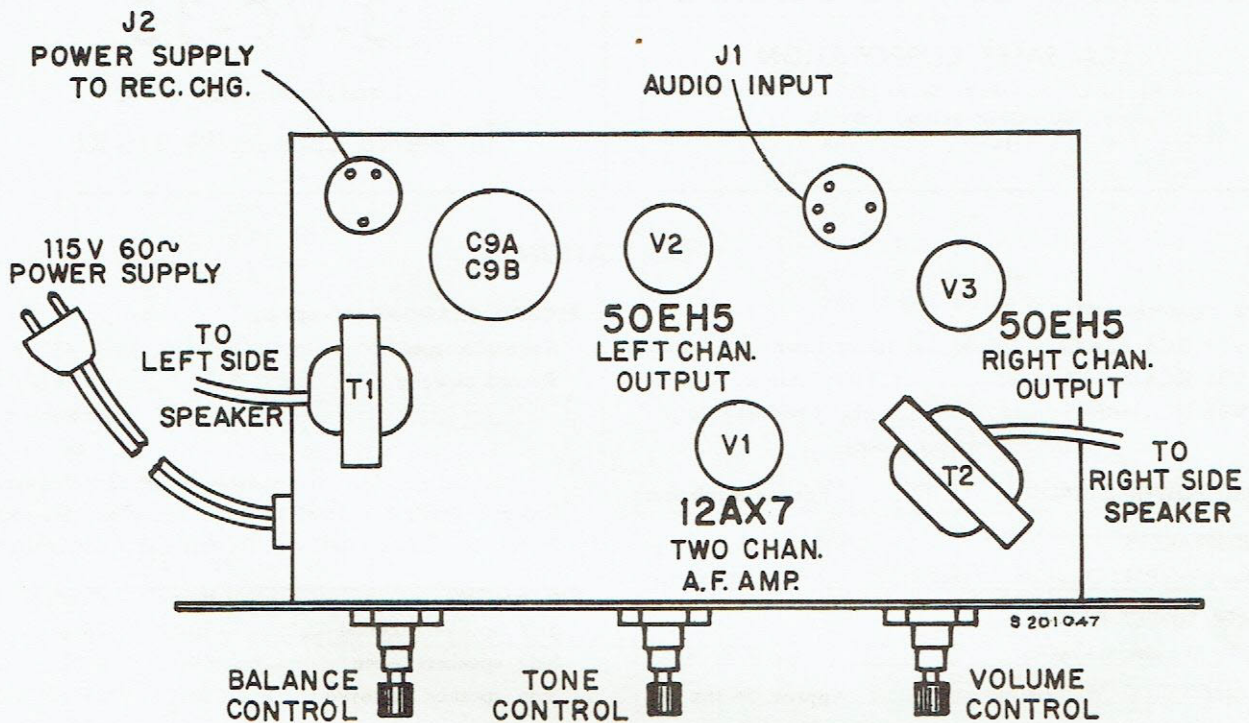
single section potentiometer connected between the grid circuits of the two output stages with its variable arm grounded. Channel balance is achieved as the arm of the control moves toward one end or the other, thus decreasing the grid resistance and gain of one channel while concurrently increasing the grid resistance of the other.

## SPEAKER PHASING

The speakers must be properly connected in order to obtain "in-phase" sound outputs. Incorrect connections will result in "out-of-phase" sound outputs with acoustical cancellation when the same frequencies are being reproduced by both speakers.

As a listening test of speaker phasing is somewhat difficult

to perform, the transformer wire colors and speaker polarities, as designated in the schematic diagram, should be observed. Proper phasing will result when the green wire from the output transformer is connected to the maximum counter-clockwise (+) terminal of its respective speaker through the plain wire of the connecting cable.



*View of Amplifier Chassis Showing Location of Tubes and Major Components*

## RECORD CHANGER RP-216-B2

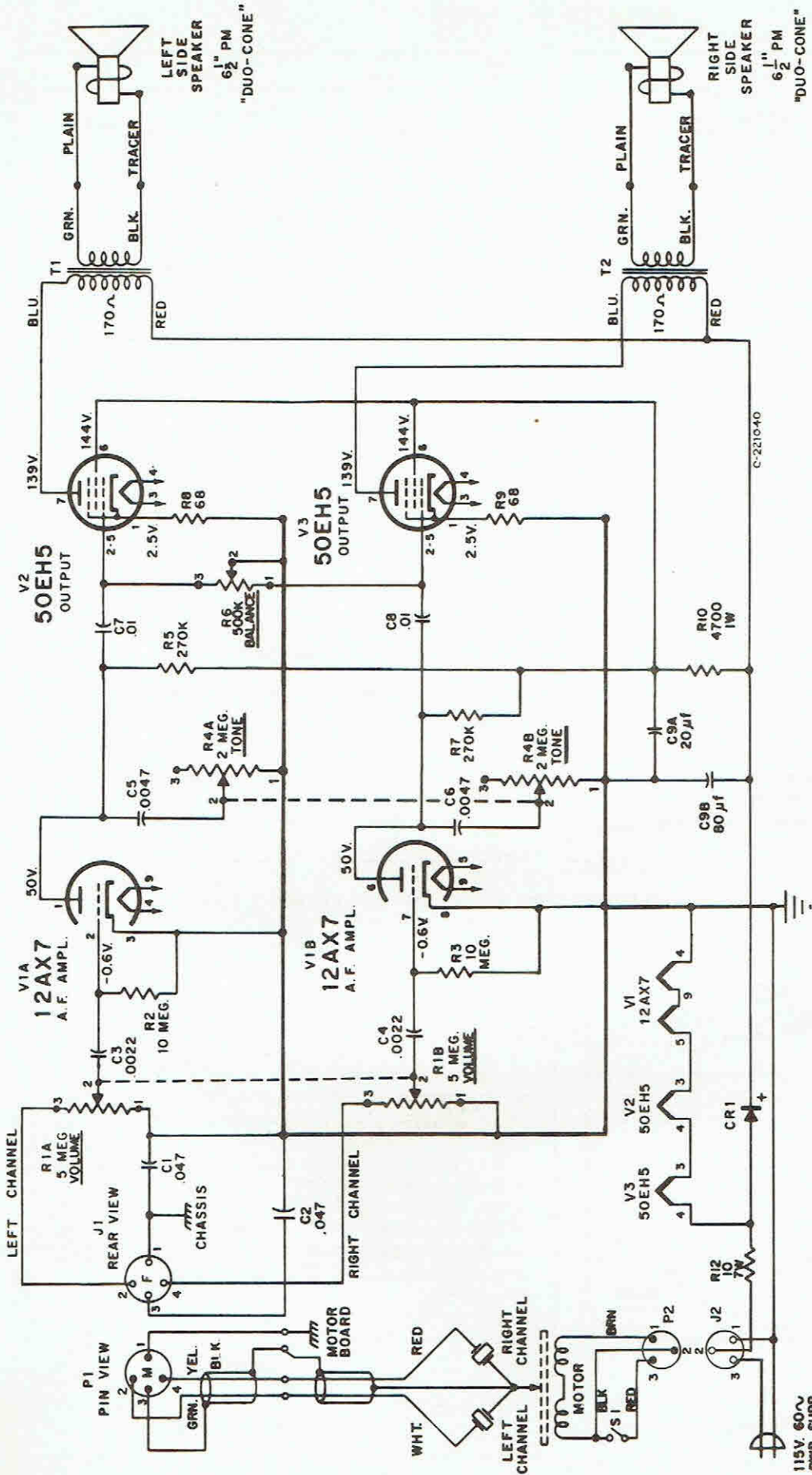
The motorboard has two grommets located under the turntable through which the red coated record changer mounting screws pass to secure the record changer to the motorboard. These screws are accessible through holes in the turntable under the turntable mat and should be loosened to the point where they bind slightly (about 10 to 12 turns). This will permit the record changer to "float" freely.

The "in-phase" pick up embodies a "push-over" dual styli "slip-in" assembly containing a 0.7 mil "MG" and a 3 mil "78" synthetic sapphire styli. Stylus changeover is accomplished by pushing the tab, protruding from the right or left side of the tone arm, so that it slides under the tone arm. DO NOT PRESS THE TAB DOWNWARD. The stylus that is in position to play is noted on the top of the exposed tab.

Record changer RP-216-B2 is similar to record changer RP-216-2 (late prod.) except as noted:

ILL. NO.	STOCK NO.	DESCRIPTION
7	110411	Escutcheon - control knob
11	110412	Knob - speed selector control and shaft assembly
<b>PICK UP AND ARM ASSEMBLY</b>		
2	110739	Arm - pick up arm shell, Date Brown, with cable on left
8	110740	Shaft - pick up arm pivot

**FOR RECORD CHANGER SERVICE INFORMATION—REFER TO "RP-215 SERIES AND RP-216 SERIES SERVICE DATA" (1961 No. 11)**



K= 1000. ALL RESISTANCE VALUES IN OHMS. ALL CAPACITANCE VALUES LESS THAN 1.0 IN  $\mu$ F, VALUES ABOVE 1.0 IN  $\mu$ F EXCEPT AS INDICATED.

VOLTAGES MEASURED TO CHASSIS GROUND WITH "VOLTOMYST" AND SHOULD HOLD WITHIN  $\pm 20\%$ .

Schematic Diagram

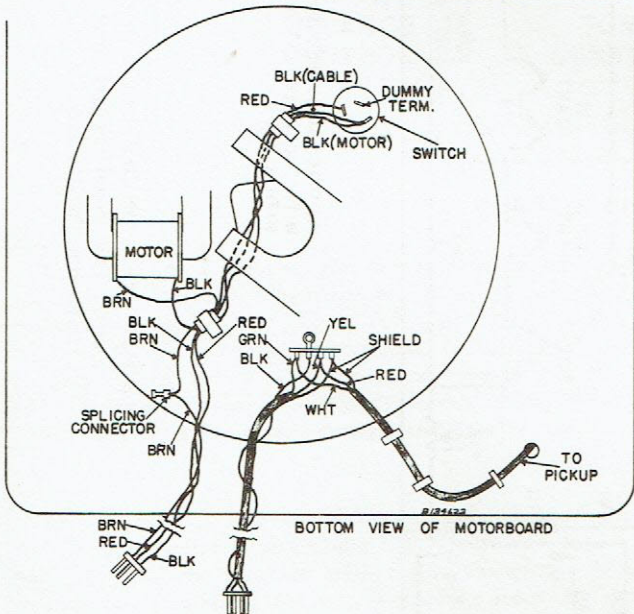
**NOTE** The "ON-OFF" switch is not part of the volume control. The record changer must be "ON" for power to be applied to the amplifier.

REPLACEMENT PARTS

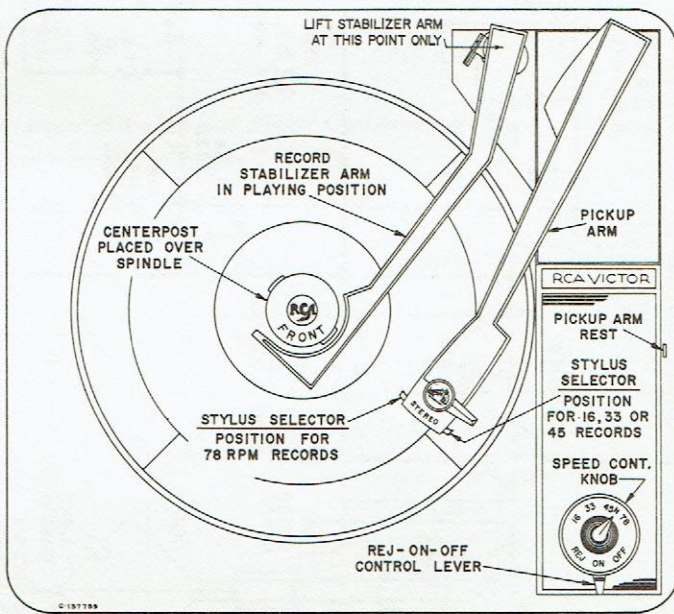
SYMBOL NO.	STOCK NO.	DESCRIPTION
<b>AMPLIFIER ASSEMBLY R5-175C</b>		
CAPACITORS:		
C1		paper—0.47 $\mu$ f, +100-0%, 400 v
C2		paper—0.047 $\mu$ f, +100-0%, 400 v
C3		ceramic—0.0022 $\mu$ f, $\pm$ 20%, 500 v
C4		ceramic—0.0022 $\mu$ f, $\pm$ 20%, 500 v
C5	103905	ceramic, 0.0047 $\mu$ f, $\pm$ 20%, 1000 v
C6	103905	ceramic—0.0047 $\mu$ f, $\pm$ 20%, 1000 v
C7		ceramic—0.01 $\mu$ f, +100-0%, 500 v
C8		ceramic—0.01 $\mu$ f, +100-0%, 500 v
C9A/B	102010	electrolytic—20/80 $\mu$ f, 150/150 v
CR1	106379	Rectifier—silicon
J1	101749	Connector—4 contact female, with retainer—for pickup cable
J2	101750	Connector—3 contact female with retainer—for motor cable
RESISTORS: fixed composition, $\pm$ 20%, 1/2 watt unless otherwise specified		
R1A/B	106969	control—dual volume
R2		10 megohm
R3		10 megohm
R4A/B	106968	control—dual tone
R5		270,000 ohm, $\pm$ 10%
R6	108972	control—balance
R7		270,000 ohm, $\pm$ 10%
R8		68 ohm, $\pm$ 10%
R9		68 ohm, $\pm$ 10%
R10		4700 ohm, 1 w
R12	108950	10 ohm, $\pm$ 10%, 7 w, wirewound
T1	108974	Transformer—output
T2	108974	Transformer—output
	70392	Cable—AC power
	110415	Grommet—power cable

SYMBOL NO.	STOCK NO.	DESCRIPTION
	79799	Socket—9 pin tube—for V1
	94925	Socket—7 pin miniature—for V2, V3
<b>RECORD CHANGER WIRING</b>		
P1	101748	Connector—4 contact male—for pickup cable
P2	101747	Connector—3 contact male—for phono power cable
S1	108457	Switch—"ON-OFF" switch
	101825	Connector—closed end type splicing—for motor leads
<b>SPEAKER ASSEMBLY</b>		
	106701	Speaker—6 1/2" P.M., 3.2 ohm v.c.
<b>MISCELLANEOUS</b>		
	111001	Bumper—cabinet
	X4881	Cabinet—less removable speaker cabinets and motorboard
	X4882	Cabinet—right hand speaker, less speaker
	X4883	Cabinet—left hand speaker, less speaker
	X5399	Cloth—grille
	110999	Foot—cabinet
	110995	Handle—carrying
	110996	Hinge—cabinet lid
	110997	Hinge—short pin slip—for speaker cabinet
	110998	Hinge—long pin slip—for speaker cabinet
	111002	Knob—control
	111000	Latch—speaker cabinet latch
	X5400	Motorboard—wood cutout—for cabinet
	109161	Nameplate—"RCA Victor"
	110337	Retainer—"45" spindle clamp
	110501	Terminal—speaker

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Record Changer Wiring



Record Changer Controls