



RCA VICTOR



*The "Mark VII"
Models 7-HFP-1 - HF-194
Brown Leatherette*

High Fidelity Portable Phonograph

MODELS

HF-194, 7-HFP-1

SERVICE DATA

—1956 No. 4—

ISSUED BY

GENERAL SERVICE DEPARTMENT
RCA VICTOR COMPANY, LTD.
MONTREAL, CANADA

SPECIFICATIONS

TUBE COMPLEMENT

1. RCA 12AX7 Amplifier and Phase Invert.
 2. RCA 50C5 Output
 3. RCA 50C5 Output
- A selenium rectifier is used.

LOUDSPEAKERS

- One 6½" PM 3.2 ohm v.c.
Two 3½" PM 6.4 ohm v.c.

POWER SUPPLY RATING

- 115 volts, 60 cycles A.C. 50 watts

POWER OUTPUT

- Undistorted 3 watts Maximum 4 watts

RECORD CHANGER

- Turntable speed 16⅔, 33⅓, 45 or 78 r.p.m.
Record capacity Up to fourteen 7 inch RCA type,
or twelve 10 inch, or ten 12 inch,
or ten 10 in. and 12 in. intermixed
Pickup (Stock No. 100653) Ceramic

DIMENSIONS (over-all)

- Height, 10¼" Width, 18¾" Depth, 18¾"

- WEIGHT 27 lbs.

DESCRIPTION

The "MARK VII" is a high-fidelity phonograph housed in a brown leatherette carrying case having a two-tone woven grille cloth. A three-speed automatic record changer, equipped with a dual-stylus ceramic pickup, is used.

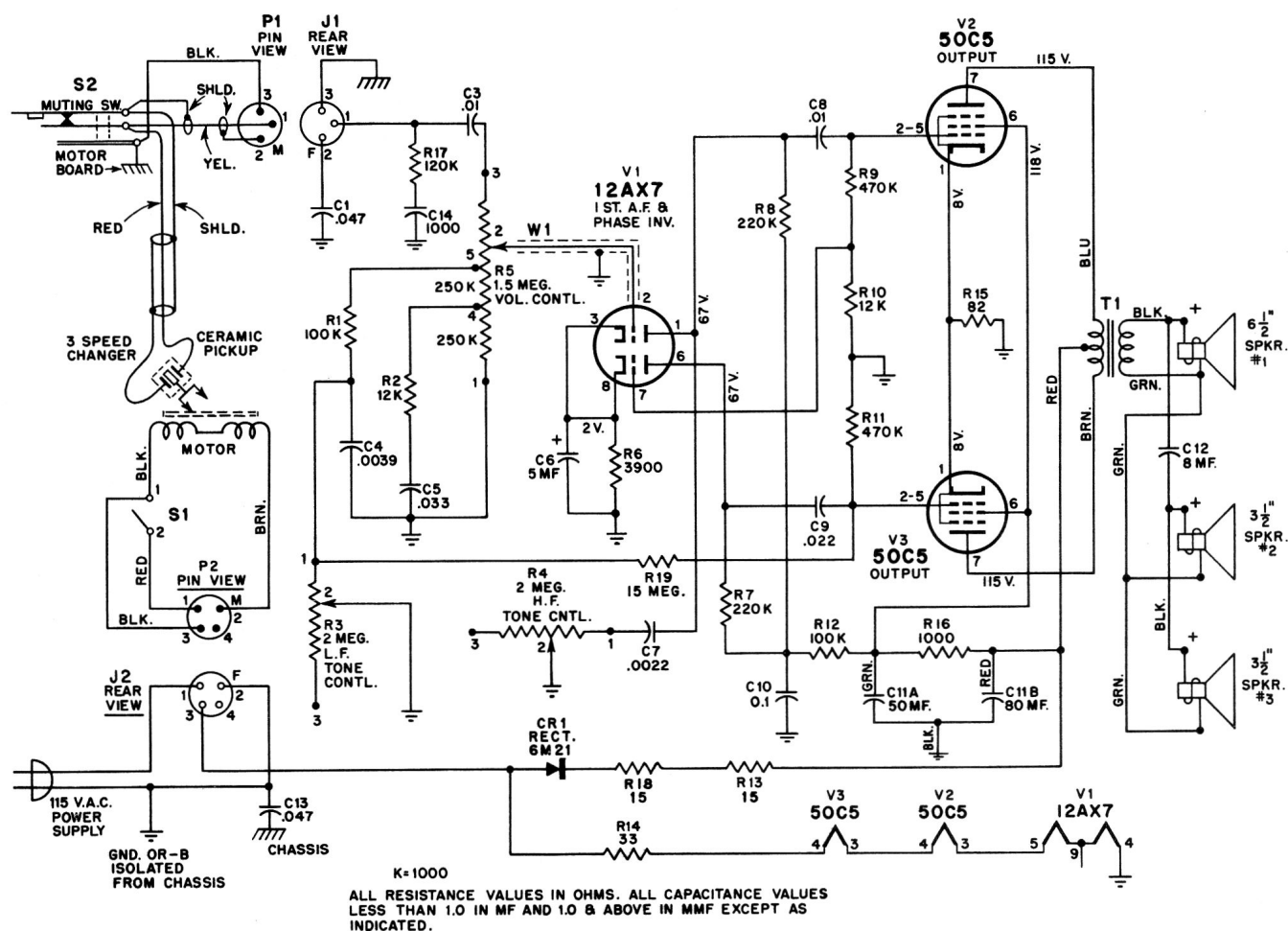
The Panoramic Speaker System is used for wide-angle sound distribution. One 6½-inch and two 3½-inch speakers are used in the Panoramic Speaker System. The frequency response is from 70 cycles to 20,000 cycles.

The amplifier has three tubes and a selenium rectifier, it is designed for operation on a 105 v. to 125 v. 60 cycle power supply. The three controls marked "LOUDNESS," "BASS," and "TREBLE" operate in a clockwise direction for maximum response. Each control is marked with numbers from 0 to 10;

the recommended normal setting of the tone controls is "5" on each dial. At this setting and with the volume control at the top tap, the frequency response from the RCA New Orthophonic frequency record #12-5-49 is fairly flat from record to voice coil except for pickup irregularities and some bass boost. The amplifier is designed to give relatively high undistorted and maximum outputs by using a push pull amplifier, large output transformer and high B+ voltage.

FOR RECORD CHANGER SERVICE INFORMATION

Model 7-HFP-1 Refer to RP 198 Series Service Data
Model HF-194 Refer to Collaro 456 Series
Service Data



CATHODE CURRENTS	
V1-----12AX7-----	0.25 MA
V2-----50C5-----	51.4 MA
V3-----50C5-----	51.4 MA

Schematic Diagram

ACCESS TO TUBES AND CHASSIS

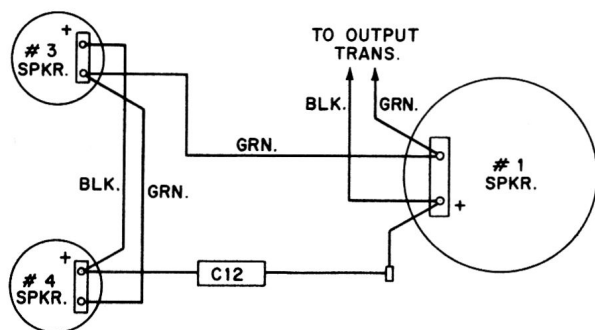
Remove inside front panel held by screws. Remove screws at edges of record changer mounting board; tilt board upward.

CRITICAL LEAD DRESS

1. Dress all heater leads and power cord close to chassis and away from 12AX7 tube socket and phono input jack to maintain low hum level.
2. Keep shielded lead W1, including shield connections, as short as possible.
3. Dress record changer power cable and pickup cable as far apart as possible to minimize hum pickup.

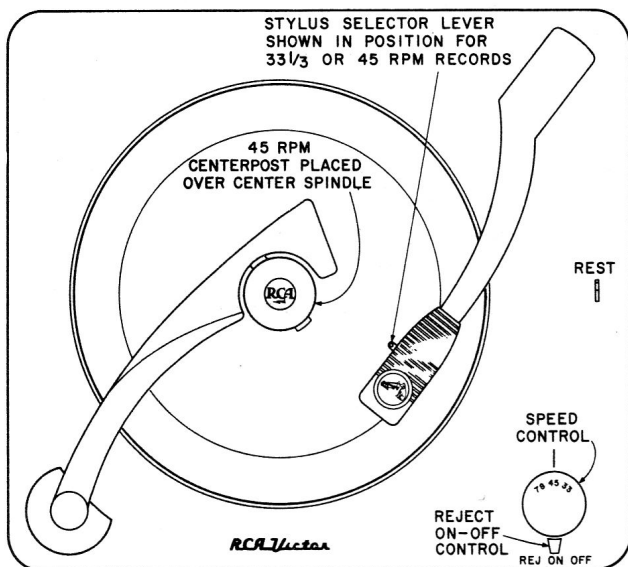
IMPORTANT

The three speakers must be connected as shown in the illustration at left. Improper connections may result in distorted or weak reproduction.



Speaker Connection Diagram

RECORD CHANGER CONTROLS



Record Changer Controls (7-HFP-1)

The record changer has a dual control on the motorboard and a stylus selector control on the pickup arm. The double-ended lever of the dual control is the OFF-ON-REJECT control. Turning this lever to the center position energizes the amplifier and motor, starting the turntable; when turned to the clockwise position it starts the mechanism into complete automatic operation. The complete instrument will shut off automatically after the last record has been played but can be shut off manually by turning this lever counter-clockwise.

The circular knob of the dual control is the speed control. It has three positions: "33", "45", "78", to select the turntable speed desired.

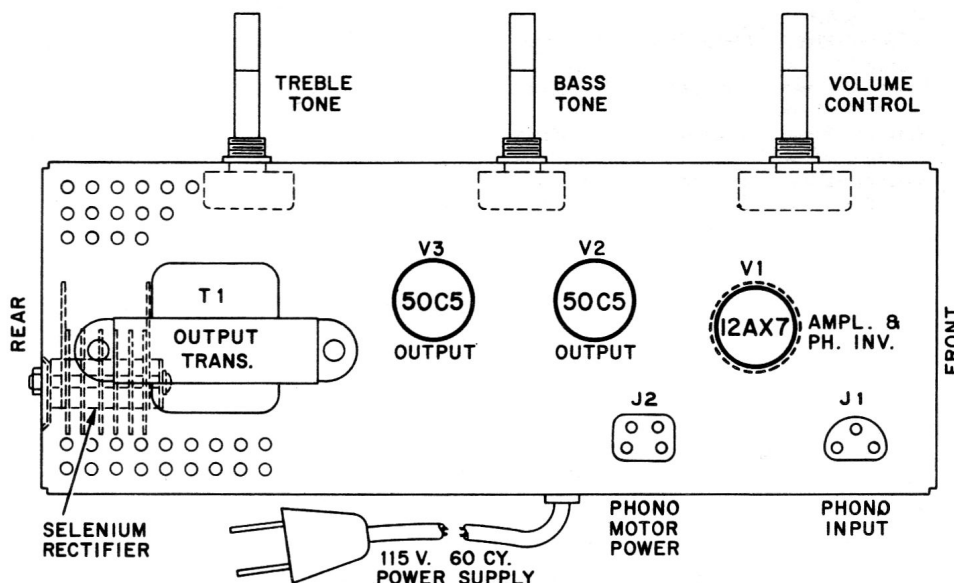
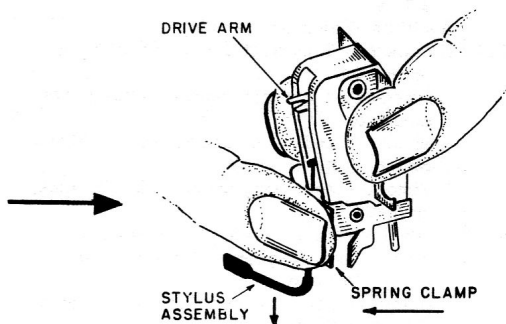
The stylus control has two positions; to change position, push the end of the control lever down and under. The right hand position ("78" showing) is for 78 r.p.m. records and the left hand position ("MG" showing) is for 33 1/3 or 45 r.p.m. records.

The removable centerpost is for use with 45 r.p.m. records having the large centerhole. It must be placed over the center spindle with the "RCA" trademark monogram FACING to the FRONT. Care should be exercised in inserting and removing 45 r.p.m. centerpost so as to prevent damage to smaller spindle.

To load or remove records, lift and turn the record stabilizer arm off to the side. After loading, the stabilizer arm should be turned to the center so it rests on the stack of records.

STYLUS REPLACEMENT

The dual stylus is held in position by a spring clamp. To remove stylus, simply hold pickup sideways and pull spring clamp away from stylus and allow it to drop out. When inserting stylus, be certain that the small diameter rod holding the styli rests in the notch of the drive arm connecting to the cartridge element.



View of Amplifier Chassis Showing Location of Tubes and Major Components

REPLACEMENT PARTS

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

Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
AMPLIFIER ASSEMBLY			R17		Resistor—Fixed, composition, 120,000 ohms, $\pm 10\%$, $\frac{1}{2}$ w.
C1		Capacitor—Fixed, paper, 0.047 mf., $\pm 20\%$, 400 v.	R18		Same as R13
C3		Capacitor—Fixed, paper, 0.01 mf., $\pm 10\%$, 400 v.	R19		Resistor—Fixed, composition, 15 meg-ohms, $\pm 10\%$, $\frac{1}{2}$ w.
C4		Capacitor—Fixed, paper, 0.0039 mf., $\pm 10\%$, 400 v.	S1	—	Part of Record Changer
C5		Capacitor—Fixed, paper, 0.033 mf., $\pm 10\%$, 200 v.	S2	—	Part of Record Changer
C6	74521	Capacitor—Electrolytic, 5 mf., -10, +100%, 50 v.	T1	100466	Transformer—Output transformer
C7		Capacitor—Fixed, paper, 0.0022 mf., $\pm 10\%$, 600 v.	RECORD CHANGER WIRING ASSEMBLY		
C8		Same as C3	100211		Connector—Closed end connector for motor lead
C9		Capacitor—Fixed, paper, 0.022 mf., $\pm 10\%$, 400 v.	P1	74192	Connector—3 contact male connector for pickup cable
C10		Capacitor—Fixed, paper, 0.1 mf., $\pm 20\%$, 400 v.	P2	100510	Connector—4 contact male connector with shell for motor power cable
C11A, C11B	75980	Capacitor—Electrolytic, 50/80 mf., 150 v.	SPEAKER ASSEMBLIES		
C12	100509	Part of Speaker Assembly	100464		Speaker— $6\frac{1}{2}$ " round PM speaker complete with cone and voice coil (3.2 ohms)—Speaker stamped 961615-1
C13		Same as C1	100465		Speaker— $3\frac{1}{2}$ " round PM speaker complete with cone and voice coil (6 to 8 ohms)—Speaker stamped 961616-1
C14	101700	Capacitor—Fixed, mica, 1000 mmf., $\pm 10\%$, 300 v.	C12	100509	Capacitor—Electrolytic, 8 mf., 10 v. AC
CR1	100654	Rectifier—Selenium rectifier	MISCELLANEOUS		
J1	36422	Connector—3 contact female phono input connector	X3506		Cloth—Cabinet grille cloth
J2	38853	Connector—4 contact female motor power connector	101734		Escutcheon—Cabinet air vent escutcheon with screen
R1		Resistor—Fixed, composition, 100,000 ohms, $\pm 10\%$, $\frac{1}{2}$ w.	101380		Escutcheon—Control escutcheon with mounting bracket
R2		Resistor—Fixed, composition, 12,000 ohms, $\pm 10\%$, $\frac{1}{2}$ w.	101733		Foot—Cabinet side feet (3 req'd)
R3	100458	Control—High frequency tone control	101730		Handle—Pastic handle only—light tan
R4	100458	Control—Low frequency tone control	101736		Hinge—Cabinet hinge (2 req'd)
R5	71596	Control—Volume control	100935		Housing—"45" RPM centerpost well housing
R6		Resistor—Fixed, composition, 3900 ohms, $\pm 10\%$, $\frac{1}{2}$ w.	100469		Knob—Control knob—black—complete with spring
R7, R8		Resistor—Fixed, composition, 220,000 ohms, $\pm 10\%$, $\frac{1}{2}$ w.	101735		Latch—Cabinet lid latch (2 req'd)
R9		Resistor—Fixed, composition, 470,000 ohms, $\pm 10\%$, $\frac{1}{2}$ w.	100162		Monogram—Trademark monogram
R10		Same as R2	100641		Nameplate—"New Orthophonic High Fidelity RCA Victor" nameplate
R11		Same as R9	101731		Post—Handle hinge mounting post (2 req'd)
R12		Same as R1	101729		Retainer—Wire retainer for 45 RPM centerpost
R13		Resistor—Fixed, composition, 15 ohms, $\pm 20\%$, 1 w.	100248		Spring—Conical spring for mounting record changer (4 req'd)
R14		Resistor—Fixed, composition, 33 ohms, $\pm 20\%$, 1 w.			
R15		Resistor—Fixed, composition, 82 ohms, $\pm 10\%$, 1 w.			
R16		Resistor—Fixed, composition, 1000 ohms, $\pm 20\%$, 1 w.			

Only items listed under stock numbers are available as Replacement Parts.
All parts subject to change or withdrawal without notice.