

AMERICAN RADIO CO., INC.
445 PARK AVENUE
NEW YORK 22, N. Y.

FOR YOUR INFORMATION
RCA INTERNATIONAL DIVISION
LICENSE DEPARTMENT



RCA VICTOR

High Fidelity Record Player

MODEL 7-HF-4

Chassis No. RS-146F

Record Changer RP-205-2

SERVICE DATA

— 1956 No. 12 —

PREPARED BY COMMERCIAL SERVICE

RCA SERVICE CO., INC.

CAMDEN 8, N. J.

FOR

RADIO CORPORATION OF AMERICA

RCA VICTOR RADIO AND "VICTROLA" DIVISION



The "Mark IV"
Model 7-HF-4
Mahogany, Maple or Oak

SPECIFICATIONS

TUBE COMPLEMENT

- (1) RCA 6C41st A.F. Amplifier
- (2) RCA 12AX72nd A.F. Amplifier & Phase Inv.
- (3) RCA 50C5Output
- (4) RCA 50C5Output

POWER SUPPLY RATING

115 volts, 60 cycles50 watts

POWER OUTPUT

- 100 cycles to 10,000 cycles
- 2 watts with less than 1% distortion
- 5 watts with less than 10% distortion

DIMENSIONS (Overall)

Height 31 $\frac{1}{4}$ " Width 29" Depth 15 $\frac{3}{8}$ "

LOUDSPEAKERS

- One 8" PM woofer"3.2 ohm v.c.
- Two 3 $\frac{1}{2}$ " PM "tweeters"6.4 ohm v.c.

RECORD CHANGER (RP-205-2)

- Turntable speed16 $\frac{2}{3}$, 33 $\frac{1}{3}$, 45 or 78 r.p.m.
- Record capacityUp to fourteen 7 inch
or twelve 10 inch.
or ten 12 inch.
or ten 10 in. and 12 in. intermixed.
- Pickup (Stock No. 100653)Ceramic

WEIGHT50 lbs. net

DESCRIPTION

The 7-HF-4 is a high fidelity console model phonograph having four tubes and a selenium rectifier operating on 105-125 volts, 60 cycles A.C. It carries the Underwriters Laboratories approval. It has a modern style cabinet in mahogany, maple or oak finish.

A special feature of Model 7-HF-4 is the provision for using the speakers of this instrument for stereophonic sound reproduction from another source, such as a tape recorder. The same speaker connection may also be used to supply a recording signal to a tape recorder.

A four-speed (16 $\frac{2}{3}$, 33 $\frac{1}{3}$, 45, and 78 RPM) record changer is used. It utilizes a ceramic dual-stylus pickup in a die-cast aluminum tone arm. A well for the 16 $\frac{2}{3}$ /45 RPM spindle is provided in the record changer.

The amplifier has three controls marked "LOUDNESS", "BASS", and "TREBLE", which operate in a clockwise direction for maximum response. Each control is marked with

numbers from 0 to 10. The amplifier is designed to give two watts output with less than 1% distortion or 5 watts with less than 10% distortion from 100 cycles to 10,000 cycles. This is accomplished by using a well designed output transformer and 12.5DB of negative feedback applied from the transformer secondary to the stage ahead of the phase inverter.

The instrument employs three speakers; the two 3 $\frac{1}{2}$ -inch speakers are mounted on plastic housings to give panoramic distribution of the higher frequencies.

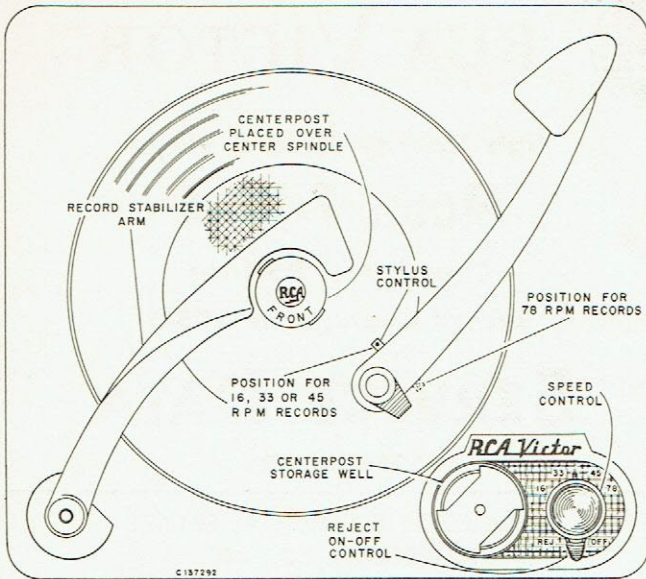
**FOR RECORD CHANGER
SERVICE INFORMATION—
REFER TO RP-205 SERIES
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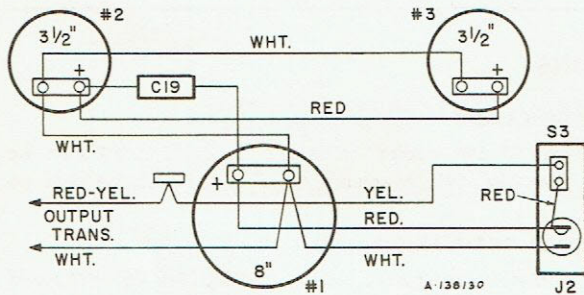
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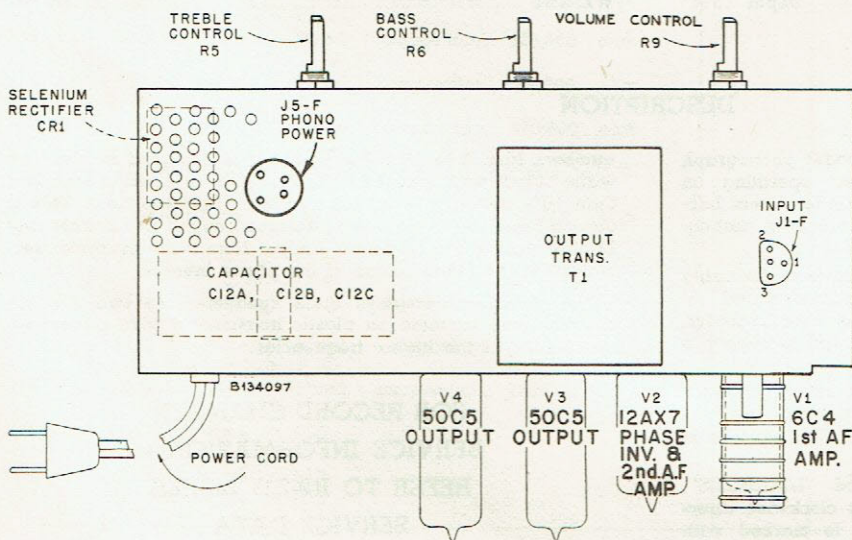
AMERICAN RECORD CO., INC.
145 PARK AVENUE
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Record Changer Controls



Speaker Connection Diagram



Top View of Amplifier

CONTROLS

The record changer has a dual control on the motorboard and a stylus selector control on the pickup arm. The metal lever of the dual control is the OFF-ON-REJECT control. Turning this lever to the center position energizes the motor and starts the turntable, when turned to the clockwise position it starts the mechanism into complete automatic operation. The mechanism 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 four positions; "16 2/3," "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 16 2/3, 33 1/3 or 45 r.p.m. records.

The removable centerpost is for use with 16 2/3 or 45 r.p.m. records having the large centerhole. It must be placed over the center spindle with the word "FRONT" FACING to the FRONT. Care should be exercised in inserting and removing the 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.

A well is provided on the record changer for storage of the centerpost when not in use. Projections on the sides of the well enable the centerpost to be secured by pressing down on the centerpost. It may be necessary to twist the centerpost slightly while pressing down.

IMPORTANT

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

The "NORMAL-STEREO" switch should be placed in the STEREO position when using the speakers of this instrument for stereophonic sound reproduction from another source.

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.

REPLACEMENT PARTS

Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
AMPLIFIER ASSEMBLY RS-146F			R24	502315	Resistor—Fixed, composition, 15,000 ohm ±10%, ½ w
C1	73553	Capacitor—Fixed, paper, 0.047 mf ±10%, 400 v	R25	502247	Resistor—Fixed, composition, 4700 ohm ±10%, ½ w
C2	74850	Capacitor—Fixed, ceramic, 1800 mmf ±10%, 500 v	R26	512015	Same as R17
C3	78573	Capacitor—electrolytic, 50 mf, 6 volts	S1, S3		Pt. of Record Changer
C4	73561	Capacitor—Fixed, paper, 0.01 mf ±10%, 400 v	S4	100185	See "Miscellaneous"
C5	73553	Same as C1	T1	100940	Transformer—Output transformer
C6	74938	Capacitor—Fixed, paper, 0.012 mf ±10%, 200 v		70392	Cord—AC power cord & plug
C7	73558	Capacitor—Fixed, paper, 0.047 mf ±10%, 200 v		100270	Grommet—Strain relief grommet for power cord
C9, C10, C11	73553	Same as C1		73584	Shield—Tube shield for V1
C12A, B, C	78617	Capacitor—Electrolytic, 80/30/10 mf, 150 v		101375	Socket—Tube socket, 7 pin miniature for V1, V3 and V4
C13	73551	Capacitor—Fixed, paper, 0.1 mf ±10%, 400 v		100474	Socket—Tube socket, 9 pin miniature for V2
C14	101000	Capacitor—Fixed, paper, 0.01 mf ±10%, 200 v	RECORD CHANGER WIRING ASSEMBLY		
C15	76508	Capacitor—Fixed, paper, 0.0015 mf ±10%, 600 v	P1	74192	Connector—3 contact male connector for phono pickup cable
C17	75249	Capacitor—Fixed, paper, 0.001 mf ±10%, 600 v	P5	100510	Connector—4 contact male connector for phono power cable
C19	100509	See "Speaker Assembly"		100211	Connector—Closed end connector for motor leads
CR1	100654	Rectifier—Selenium rectifier	SPEAKER ASSEMBLIES		
J1	36422	Connector—3 contact female connector for phono pickup input cable		100465	Speaker—3½" PM speaker complete with cone. Speaker stamped 961616-1 (2 req'd)
J2		See "Miscellaneous"		78597	Speaker—8" PM speaker complete with cone. Speaker stamped 972229-3
J5	38853	Connector—4 contact female connector for phono motor cable		100467	Housing—Plastic housing for 3½" speakers (2 req'd)
R1	502439	Resistor—Fixed, composition, 390,000 ohm ±10%, ½ w	C19	100509	Capacitor—Electrolytic, 8 mf, 10 volt AC
R2	502518	Resistor—Fixed, composition, 1.8 megohm ±10% ½ w	MISCELLANEOUS		
R3	502239	Resistor—Fixed, composition, 3900 ohm ±10%, ½ w	J2	35787	Connector—Female pin connector for tape recorder
R4	502382	Resistor—Fixed, composition, 82,000 ohm ±10% ½ w	S4	100185	Switch—Slide switch for stereophonic sound
R5	102398	Control—Treble tone control		M3572	Back—Cabinet back cover
R6	102399	Control—Bass tone control		X3573	Cloth—Grille cloth for blond oak cabinet
R7	502322	Resistor—Fixed, composition, 22,000 ohm ±10% ½ w		X3582	Cloth—Grille cloth for mahogany cabinet
R8	502282	Resistor—Fixed, composition, 8200 ohm ±10%, ½ w		X3574	Cloth—Grille cloth for maple cabinet
R9	102397	Control—Volume control		100459	Cushion—Felt cushion for cabinet lid (2 req'd)
R10	502268	Resistor—Fixed, composition, 6800 ohm ±10%, ½ w		102348	Escutcheon—Control knob escutcheon with tone & loudness calibrations
R11	502422	Resistor—Fixed, composition, 220,000 ohm ±10%, ½ w		101050	Ferrule—Brass ferrule for cabinet leg
R12	502339	Resistor—Fixed, composition, 39,000 ohm ±10%, ½ w		102420	Hinge—Cabinet lid hinge (less screws)
R13	502447	Resistor—Fixed, composition, 470,000 ohm ±10%, ½ w		79957	Insulator—Soft rubber insulator for mounting record changer
R14	512082	Resistor—Fixed, composition, 82 ohm ±10%, 1 w		102347	Knob—Control knob with spring
R15	502318	Resistor—Fixed, composition, 18,000 ohm ±10%, ½ w		100641	Nameplate—"New Orthophonic High Fidelity RCA Victor" nameplate
R16	502310	Resistor—Fixed, composition, 10,000 ohm ±10%, ½ w		76894	Nut—#10-32 nut for record changer mounting stud (2 req'd)
R17	512015	Resistor—Fixed, composition, 15 ohm ±20%, 1 w		73203	Nut—Retaining nut for nameplate (5 req'd)
R18	512212	Resistor—Fixed, composition, 1200 ohm ±10%, 1 w		70999	Spring—Cabinet lid support spring
R19	502410	Resistor—Fixed, composition, 100,000 ohm ±10%, ½ w		100248	Spring—Conical spring for mounting record changer (4 req'd)
R20	502268	Same as R10		30900	Spring—Retaining spring for control knob
R21	502422	Same as R11		79339	Stud—Threaded stud for mounting record changer (4 req'd)
R22	502447	Same as R13		101052	Support—Cabinet lid support (less spring)
R23	502422	Same as R11		101787	Washer—Felt washer for control knobs
				78753	Washer—Rubber insulating washer for mount- ing record changer
				79340	Washer—Paper insulating washer for mount- ing record changer

APPLY TO YOUR RCA DISTRIBUTOR FOR PRICES OF REPLACEMENT PARTS