



RCA VICTOR



Model 8-HFP-1—The "Mark VII"
Brown Leatherette

High Fidelity Portable Phonograph

MODEL 8-HFP-1

Chassis No. RS-158B

Record Changer RP-205-6

SERVICE DATA

— 1956 No. 17 —

PREPARED BY COMMERCIAL SERVICE
RCA SERVICE CO., INC.
CAMDEN 8, N. J.

FOR
RADIO CORPORATION OF AMERICA
RCA VICTOR RADIO AND "VICTROLA" DIVISION

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 2.5 watts Maximum 3.5 watts

RECORD CHANGER (RP-205-6)

Turntable speed 16⅔, 33⅓, 45 or 78 r.p.m.
Record capacity Up 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

DIMENSIONS (over-all)

Height, 10⅞" 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 four-speed automatic record changer, equipped with a dual-stylus ceramic pickup, is used. One 6½-inch and two 3½-inch speakers are used. The frequency response is from 70 cycles to 20,000 cycles.

A special feature of Model 8-HFP-1 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.

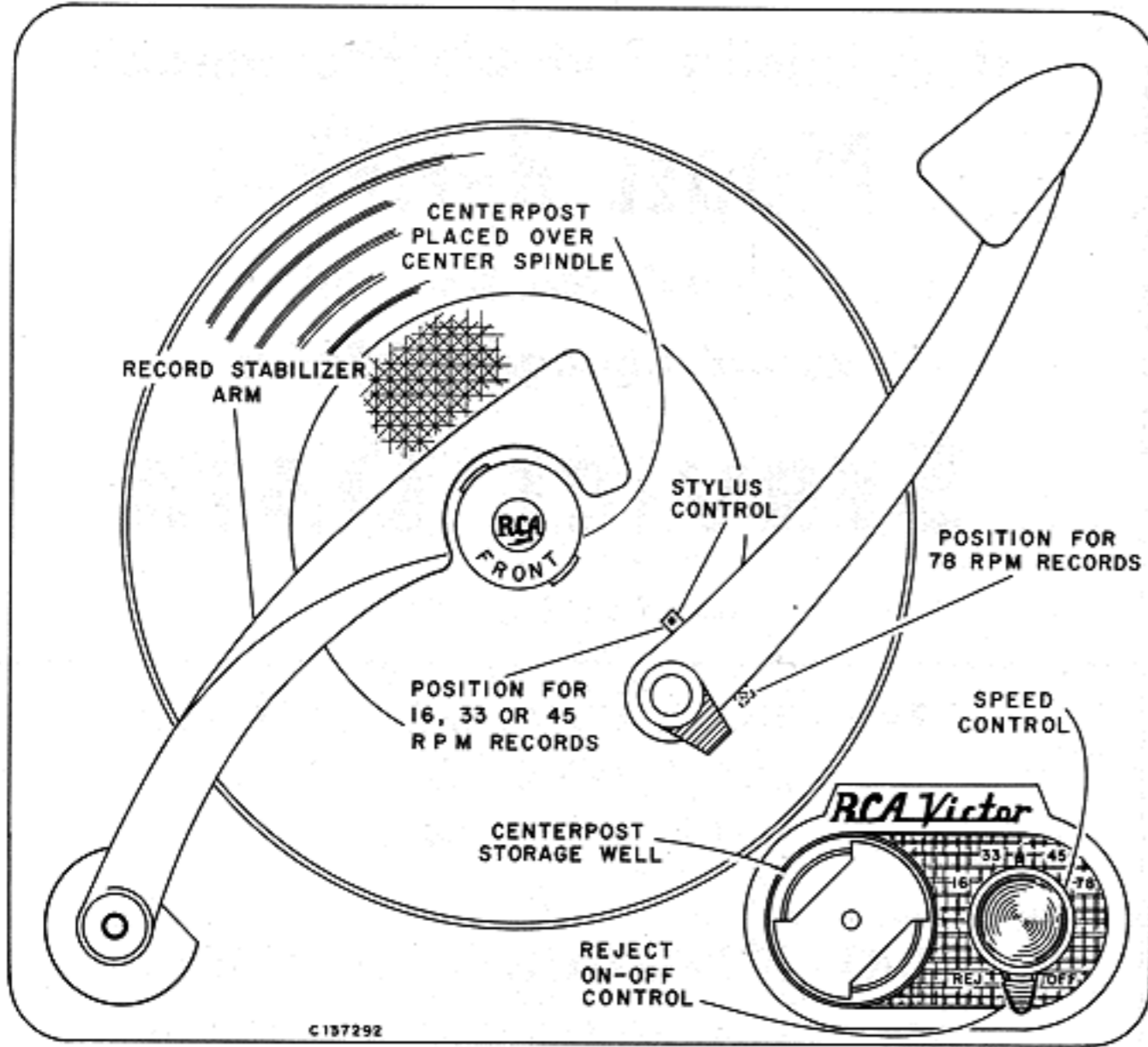
The amplifier has three tubes and a selenium rectifier; it is designed for operation on a 105 v. to 125 v. 60 cycle power supply. The three controls marked "LOUDNESS," "BASS," and "TREBLE" operate in a clockwise direction for maximum re-

sponse. 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—
REFER TO RP-205 SERIES
SERVICE DATA**

Tmks. ® Reg. U. S. Pat. Off.

RECORD CHANGER CONTROLS



Record Changer Controls

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.

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 and a neutral ("N") position.

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.

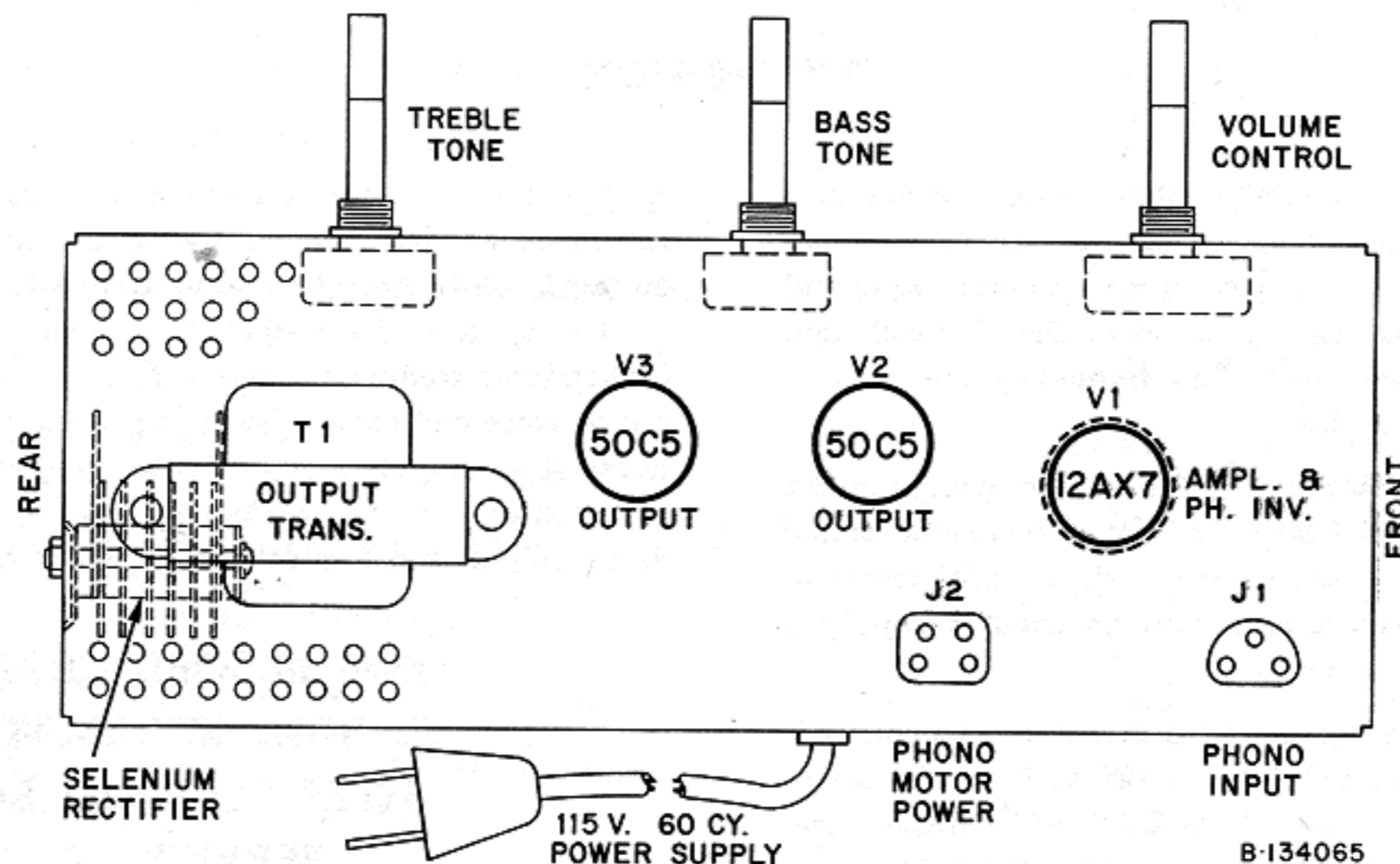
The removable centerpost is for use with 16 2/3 or 45 r.p.m. records having the large centerhole. It must be placed over the center spindle with the word "FRONT" FACING to the FRONT. Care should be exercised in inserting and removing the centerpost so as to prevent damage to smaller spindle.

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 until a slight "click" is heard. It may be necessary to twist the centerpost slightly while pressing down. To remove centerpost, press down slightly and rotate.

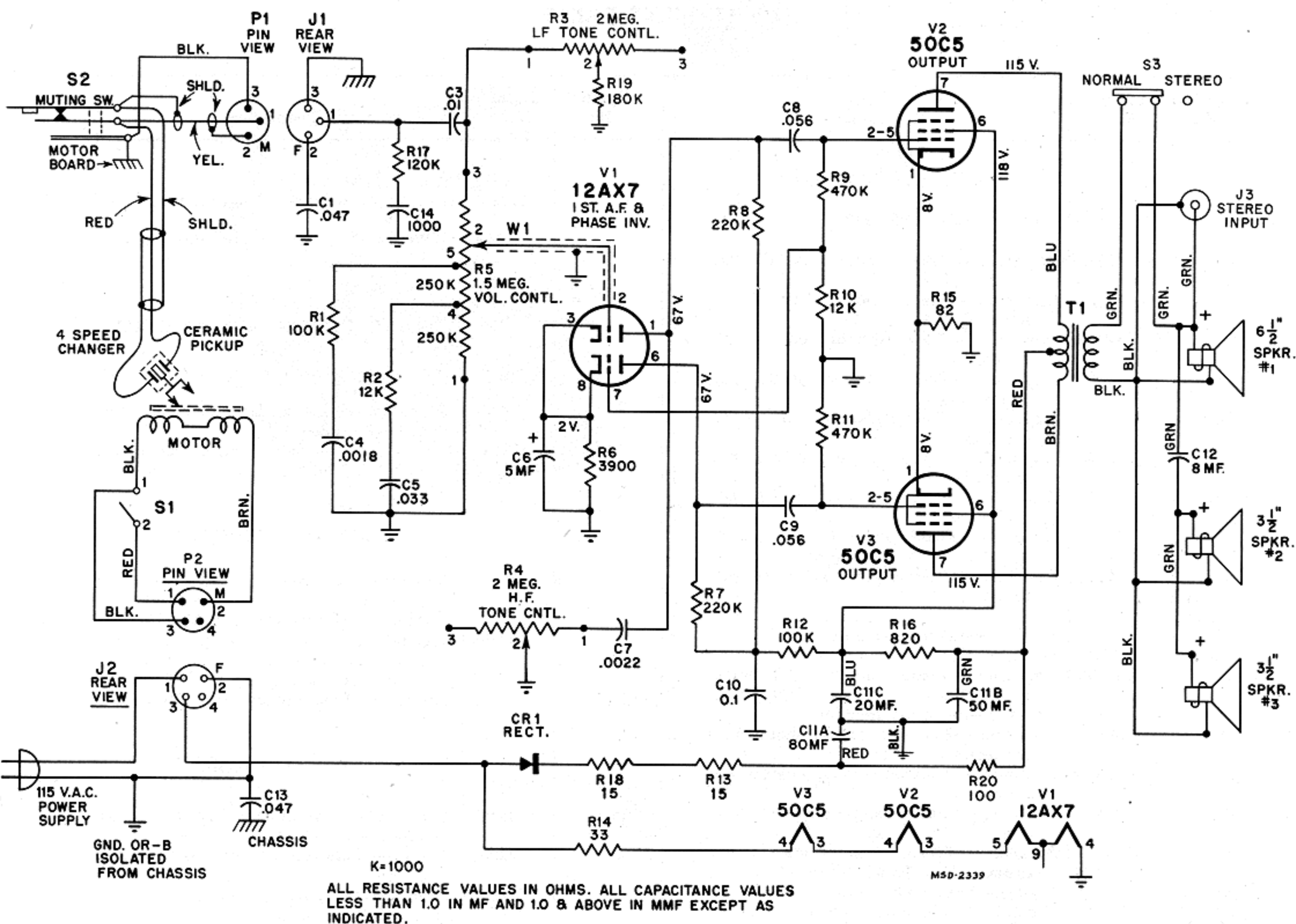
To load or remove records, lift and turn the record stabilizer arm off to the side. After loading, the stabilizer arm should be turned to the center so it rests on the stack of records.

ACCESS TO TUBES AND CHASSIS

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



View of Amplifier Chassis Showing Location of Tubes and Major Components



CATHODE CURRENTS

V1	12AX7	0.25 MA
V2	50C5	51.4 MA
V3	50C5	51.4 MA

Schematic Diagram

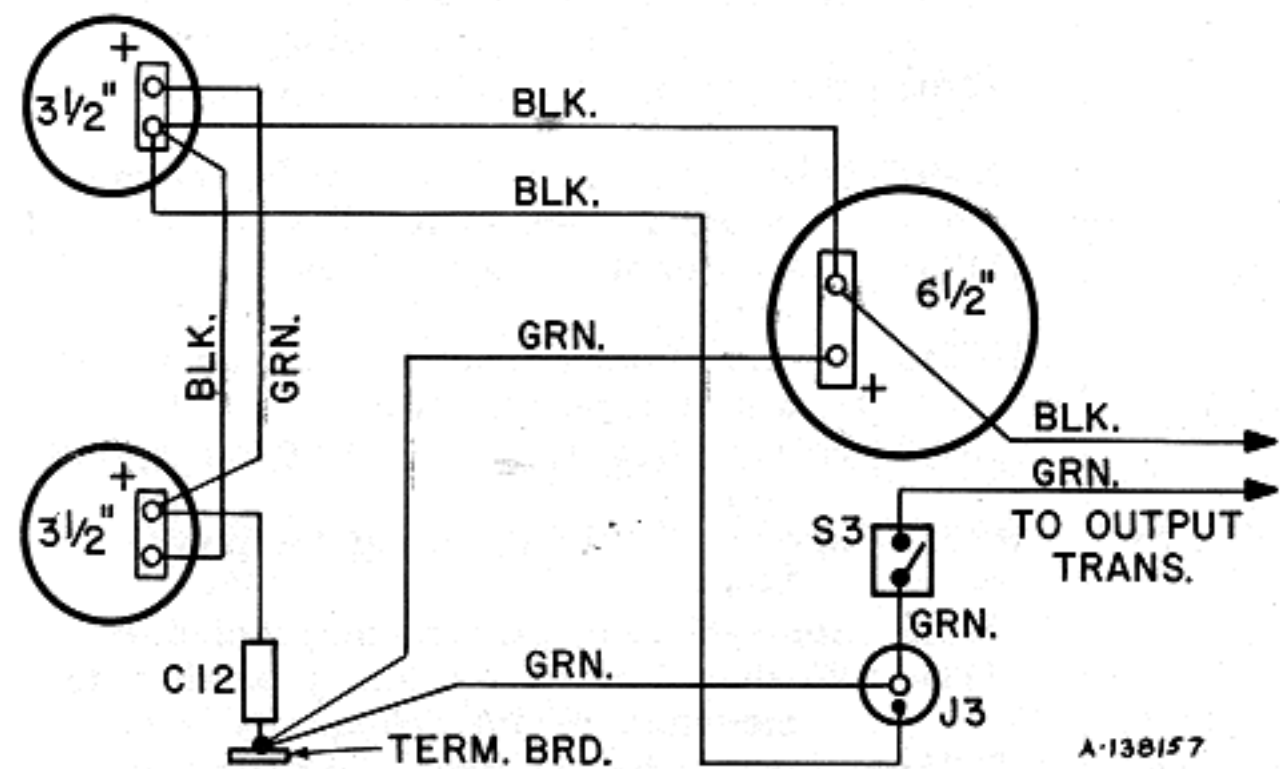
STYLUS REPLACEMENT

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.

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.



Speaker Connection Diagram

REPLACEMENT PARTS

Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
AMPLIFIER ASSEMBLY					
RS-158B					
C1	73553	Capacitor—Fixed, paper, 0.047 mf., ±20%, 400 v.		76972	Shield—Tube shield for V1
C3	73561	Capacitor—Fixed, paper, 0.01 mf., ±10%, 400 v.		101699	Socket—Tube socket, 7 pin miniature for V2, V3
C4	77468	Capacitor—Fixed, paper, 0.0018 mf., ±10%, 600 v.		100474A	Socket—Tube socket, 9 pin miniature for V1
C5	79015	Capacitor—Fixed, paper, 0.033 mf., ±10%, 200 v.			RECORD CHANGER WIRING ASSEMBLY
C6	74521	Capacitor—Electrolytic, 5 mf., -10, +100%, 50 v.	P1	74192	Connector—3 contact male connector for pickup cable
C7	73595	Capacitor—Fixed, paper, 0.0022 mf., ±10%, 600 v.	P2	100510	Connector—4 contact male connector with shell for motor power cable
C8, C9	73791	Capacitor—Fixed, paper, 0.056 mf., ±10%, 400 v.			SPEAKER ASSEMBLIES
C10	73551	Capacitor—Fixed, paper, 0.1 mf., ±20%, 400 v.			
C11A, C11B, C11C	102685	Capacitor—Electrolytic, 80/50/20 mf., 150 v.		100464	Speaker—6½" round PM speaker complete with cone and voice coil (3.2 ohms)—Speaker stamped 961615-1
C12	100509	Part of Speaker Assembly		100465	Speaker—3½" round PM speaker complete with cone and voice coil (6 to 8 ohms)—Speaker stamped 961616-1
C13	73553	Same as C1			
C14	101700	Capacitor—Fixed, mica, 1000 mmf., ±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			
J2	38853	Connector—4 contact female motor power connector			
R1	502410	Resistor—Fixed, composition, 100,000 ohms, ±10%, ½ w.	J3	35787	Connector—Stereophonic sound input connector
R2	502312	Resistor—Fixed, composition, 12,000 ohms, ±10%, ½ w.	S3	33900	Switch—Slide switch for stereophonic sound
R3	102346	Control—Bass tone control		102875	Chain—Cabinet lid stop chain
R4	102345	Control—Treble tone control		X3506	Cloth—Cabinet grille cloth
R5	102344	Control—Volume control		101734	Escutcheon—Cabinet air vent escutcheon with screen
R6	502239	Resistor—Fixed, composition, 3900 ohms, ±10%, ½ w.		102348	Escutcheon—Control escutcheon
R7, R8	502422	Resistor—Fixed, composition, 220,000 ohms, ±10%, ½ w.		101733	Foot—Cabinet side feet (3 req'd)
R9	502447	Resistor—Fixed, composition, 470,000 ohms, ±10%, ½ w.		101730	Handle—Plastic handle only—light tan
R10	502312	Same as R2		101390	Hinge—Cabinet hinge (2 req'd)
R11	502447	Same as R9		79957	Insulator—Rubber insulator for mounting record changer (4 req'd)
R12	502410	Same as R1		102347	Knob—Control knob—gray—complete with spring
R13	38859	Resistor—Fixed, composition, 15 ohms, ±20%, 1 w.		101735	Latch—Cabinet lid latch (2 req'd)
R14	512033	Resistor—Fixed, composition, 33 ohms, ±20%, 1 w.		100162	Monogram—Trademark monogram
R15	31959	Resistor—Fixed, composition, 82 ohms, ±10%, 1 w.		100641	Nameplate—"New Orthophonic High Fidelity RCA Victor" nameplate
R16	512182	Resistor—Fixed, composition, 820 ohms, ±10%, 1 w.		73203	Nut—Speed nut, retainer for nameplate (5 req'd)
R17	502412	Resistor—Fixed, composition, 120,000 ohms, ±10%, ½ w.		76894	Nut—#10-32 spring nut for changer mounting stud (4 req'd)
R18	38859	Same as R13		101731	Post—Handle hinge mounting post (2 req'd)
R19	502418	Resistor—Fixed, composition, 180,000 ohm, ±10%, ½ w.		100248	Spring—Conical spring for mounting record changer (4 req'd)
R20	522110	Resistor—Fixed, composition, 100 ohm, ±10%, 2 w.		30900	Spring—Control knob retaining spring clip
S1	—	Part of Record Changer		101728	Spring—Retaining spring for power cables
S2	—	Part of Record Changer		79339	Stud—Motorboard mounting stud (4 req'd)
T1	100466	Transformer—Output transformer		79340	Washer—Fibre insulating washer for mounting record changer (4 req'd)
	70392	Cord—AC power cord & plug		78753	Washer—Rubber insulating washer for mounting record changer (4 req'd)
	100270	Grommet—Strain relief grommet for power cord (1 set)			

APPLY TO YOUR RCA DISTRIBUTOR FOR PRICES OF REPLACEMENT PARTS