



RCA VICTOR



VHE44A
VHE46M

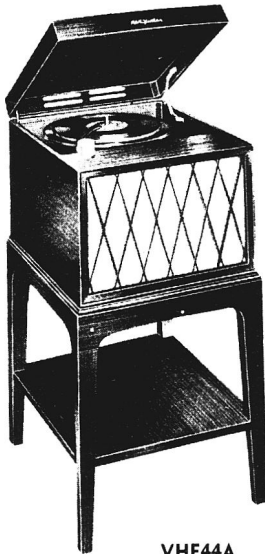
HIGH FIDELITY RECORD PLAYERS

MODELS

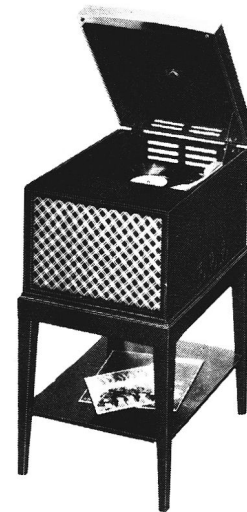
VHE44A

VHE46M

SERVICE DATA



VHE44A



VHE46M

GENERAL DESCRIPTION

Models VHE44A and VHE46M are high fidelity table model phonographs having four tubes and a selenium rectifier operating on 105-125 volts, 60 cycles AC.

The cabinets are of modern style in Walnut, Mahogany or Oak finish.

The model VHE44A uses a three speed (33 1/3, 45 and 78 RPM) automatic record changer. Model VHE46M incorporates a three speed manual record changer. A well for the 45 RPM adapter disc and 45 RPM spindle is provided in the cabinets. Both changers utilize a plug in head equipped

with a ceramic dual-stylus pick-up to mate with its die-cast aluminum tone arm.

The amplifier has three controls marked "Loudness", "Bass" and "Treble" which operate in a clock-wise direction for maximum response. Each control is marked with numbers 0 to 10. The amplifier is designed to give two watts output with less than 1% distortion from 100 cycles to 10000 cycles. This is accomplished by using a well designed output transformer and a 12.5 DB of negative feedback applied from the secondary to the stage ahead of the phase inverter.

ELECTRICAL AND MECHANICAL 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—10,000 cycles

2 watts with less than 1% distortion

At 1000 cycles

2.5 watts with less than 1% distortion

LOUDSPEAKER

Size & type8 inch wide range

Voice coil impedance4 ohms @ 400 cycles

RECORD CHANGER (Automatic) (930800 SERIES) VHE44A

Turntable speed33 1/2, 45 or 78 r.p.m.

Record capacityUp 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. 78748)Ceramic

RECORD CHANGER (Manual) (125078 SERIES) VHE46M

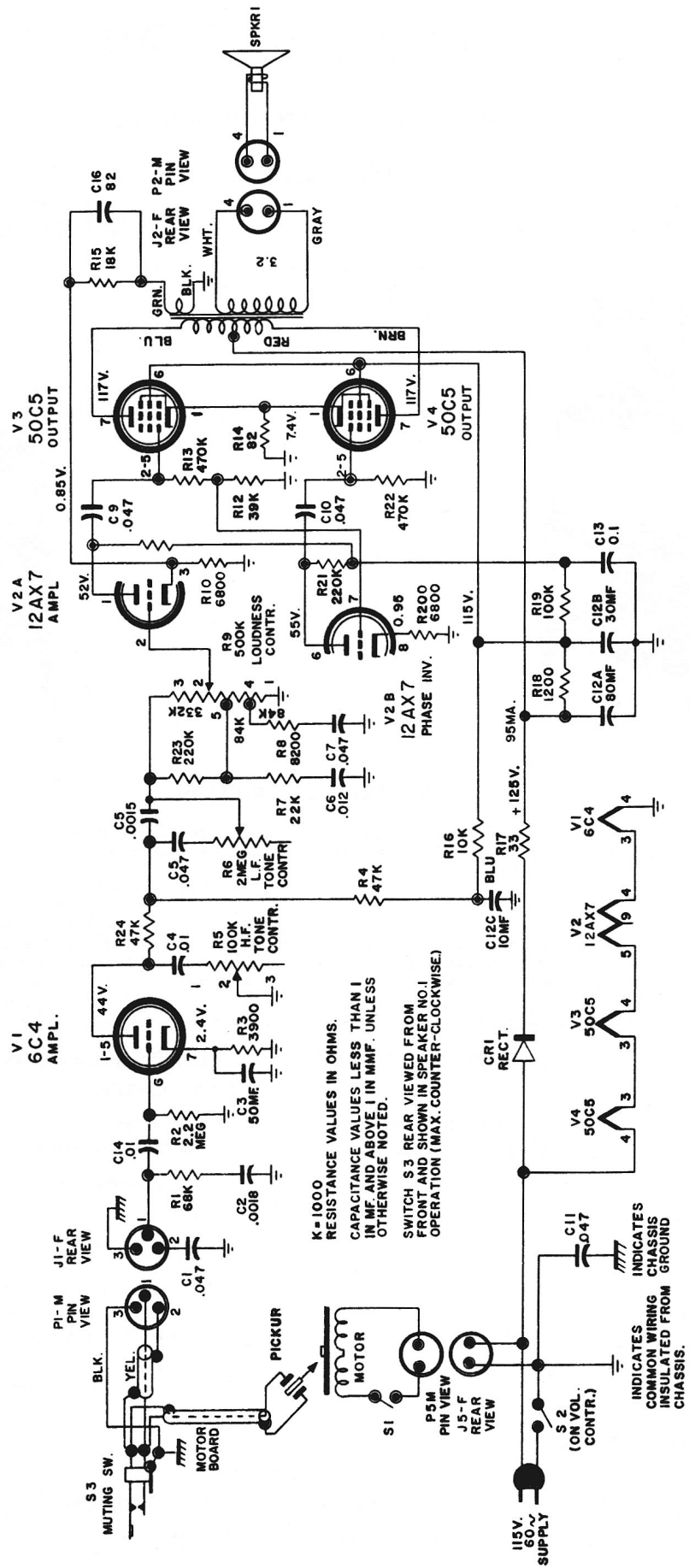
Turntable Speed (33 1/2, 45 or 78 RPM)

ISSUED BY

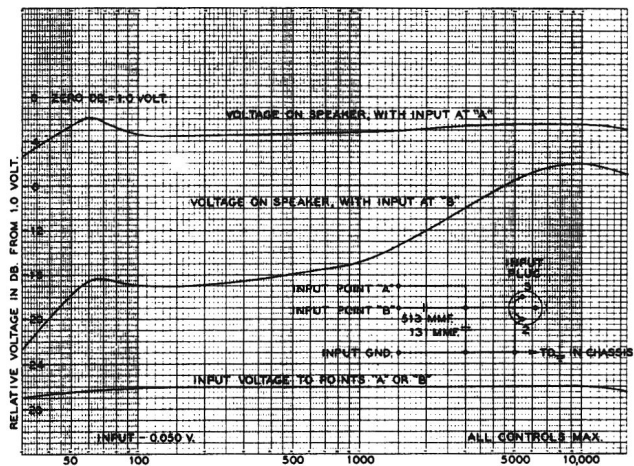
HOME INSTRUMENT SERVICE DIVISION

RCA VICTOR COMPANY, LTD.

MONTREAL, CANADA

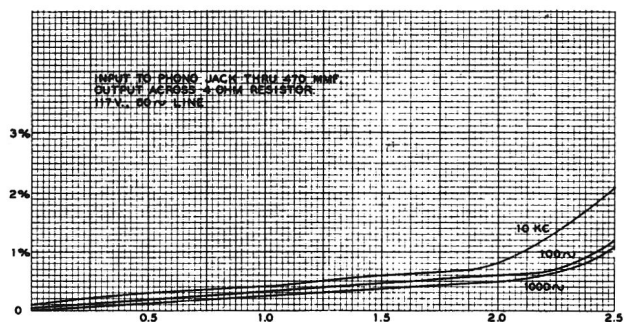


Schematic Diagram

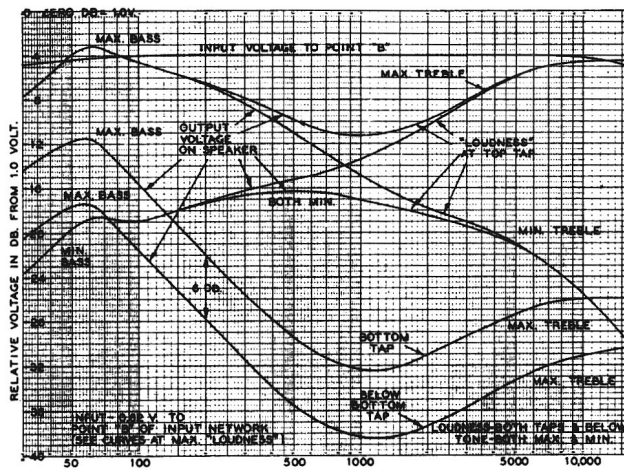


Overall Frequency Response using "Dummy Pickup"

The "dummy pickup" is used to connect a signal generator to the amplifier input without materially changing the response characteristics.



Power Output vs. Distortion

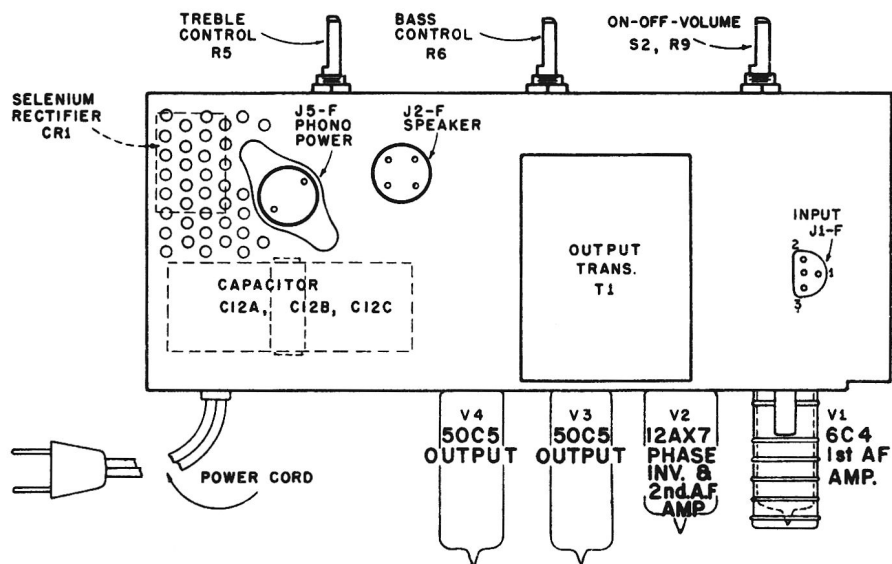


Tone Control and Loudness Positions vs. Frequency Response.

THE PERFORMANCE CURVES SHOWN WERE TAKEN FROM PRODUCTION INSTRUMENTS AND ARE CONSIDERED TYPICAL SLIGHT VARIATIONS IN RESPONSE CAN BE EXPECTED WITH OTHER UNITS.

CRITICAL LEAD DRESS

1. Dress all capacitors except C4 and C5 against chassis.
2. Dress R17 at least $\frac{1}{2}$ " away from C11 and C12.
3. Dress all leads away from R18.
4. Keep all leads on R1, R2, C2, and C14 as short as possible.
5. Dress all filament wiring against chassis.



Top View of Amplifier

REPLACEMENT PARTS LIST FOR MODELS VHE44A, VHE46M

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

STOCK NO.	PART DESCRIPTION	STOCK NO.	PART DESCRIPTION
	Amplifier Assemblies		Miscellaneous
74850	Capacitors - Fixed, ceramic, insulated, High "K": 1800 mmf., $\pm 10\%$, 500 volts (C2)	X3349	Cloth - Grille cloth for mahogany instruments
75785	82 mmf., $\pm 20\%$, 500 volts (C16)	X3371	Cloth - Grille cloth for oak instruments
78573	Capacitors - Electrolytic: 50 mfd., 60 volts (C3)	75474	Connector - Single contact male connector for speaker cable
78617	comprising: 1 section of 80 mfd., 150 volts, 1 section of 30 mfd., 150 volts and 1 section of 10 mfd., 150 volts (C12A, C12B, C12C)	74192	Connector - 3 contact male connector for pickup cable (P1)
	Capacitors - Fixed, tubular, paper: .0015 mfd., 600 volts (C15) .01 mfd., 400 volts (C4, C14) .012 mfd., 200 volts (C6) .047 mfd., 200 volts (C7) .047 mfd., 400 volts (C1, C5, C9, C10, C11) 0.1 mfd., 400 volts (C13)	39153	Connector - 4 contact male connector less shell for speaker cable (P2)
	Connector - 2 contact female connector for motor cable (J5)	78611	Decal - Control function decal for mahogany instruments
36422	Connector - 3 contact female connector for pickup cable (J1)	78612	Decal - Control function decal for oak instruments
38853	Connector - 4 contact female connector for speaker (J2)	74273	Decal - "Victrola" decal
S-20318	Control - H. F. tone control (R5)	78377	Foot - Felt foot
S-20317	Control - L. F. tone control (R6)	78613	Grille - Metal grille for mahogany instruments (VHE44A)
S-20314	Control - Volume control and power switch (R9, S2)	78614	Grille - Metal grille for oak instruments (VHE44A)
S-4367	Cord - Power cord and plug	77735	Knob - Speaker switch knob - brown - for mahogany instruments
74838	Grommet - Power cord strain relief (1 set)	77736	Knob - Speaker switch knob - medium beige - for oak instruments
78101	Rectifier - Selenium rectifier (CR1)	78576	Knob - Volume or tone control knob - maroon - for mahogany instruments
	Resistors - Fixed, composition: 33 ohms, $\pm 10\%$, 1 watt (R17) 82 ohms, $\pm 10\%$, 1 watt (R14) 1200 ohms, $\pm 10\%$, 1 watt (R18) 3900 ohms, $\pm 10\%$, 1/2 watt (R3) 6800 ohms, $\pm 10\%$, 1/2 watt (R10, R20) 9200 ohms, $\pm 10\%$, 1/2 watt (R8) 10,000 ohms, $\pm 10\%$, 1/2 watt (R16) 18,000 ohms, $\pm 10\%$, 1/2 watt (R15) 22,000 ohms, $\pm 10\%$, 1/2 watt (R7) 39,000 ohms, $\pm 10\%$, 1/2 watt (R12) 47,000 ohms, $\pm 10\%$, 1/2 watt (R4, R24) 68,000 ohms, $\pm 10\%$, 1/2 watt (R1) 100,000 ohms, $\pm 10\%$, 1/2 watt (R19) 220,000 ohms, $\pm 10\%$, 1/2 watt (R11, R21, R23) 470,000 ohms, $\pm 10\%$, 1/2 watt (R13, R22) 2.2 megohm, $\pm 10\%$, 1/2 watt (R2)	78577	Knob - Volume or tone control knob - medium k beige - for oak instruments
73584	Shield - Tube shield for V1	72692	Hinge - Cabinet lid hinge for mahogany instruments
73117	Socket - Tube socket, 7 pin, miniature, wafer for V1, V3, V4	78609	Hinge - Cabinet lid hinge for oak instruments
76971	Socket - Tube socket, 9 pin, wafer for V2	77012	Nameplate - "RCA Victor" nameplate
S-20326	Transformer - Output transformer (T1)	73634	Nut - Speednut for speaker mounting screw
		76894	Nut - Spring nut for record changer mounting stud
		76837	Spring - Retaining spring for knobs
		76893	Stud - #10-32 x 1 3/4" special stud for record changer
		71824	Stud - Hinge stud and screw (1 set)
		77221	Support - Lid support for mahogany instruments
		78610	Support - Lid support for oak instruments
		S-20313	Turntable - record turntable for VHE46M
	Speaker Assemblies		
S-9973	Speaker - 8" PM speaker complete with cone and voice coil		