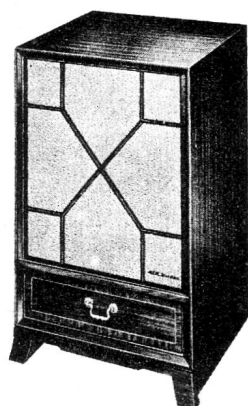


Model VHE-44A-1
on Stand HF5STD



Speaker SPK-8



RCA VICTOR



HIGH FIDELITY RECORD PLAYER

Model VHE-44A-1

SERVICE DATA

— 1955 No. 22 —

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

FOR RECORD CHANGER SERVICE INFORMATION
—REFER TO 124330 SERIES SERVICE DATA.

ELECTRICAL AND MECHANICAL SPECIFICATIONS

TUBE COMPLEMENT

- (1) RCA 6C4 1st A.F. Amplifier
- (2) RCA 12AX7 2nd A.F. Amplifier & Phase Inv.
- (3) RCA 50C5 Output
- (4) RCA 50C5 Output

POWER SUPPLY RATING

115 volts, 60 cycles 50 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 & type 8 inch wide range

Voice coil impedance 4 ohms @ 400 cycles

RECORD CHANGER (124330 -3 or -4 SERIES)

Turntable speed 33 $\frac{1}{3}$, 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 S-20730) Ceramic

DIMENSIONS (Overall)

Height 15 $\frac{1}{2}$ "

Width 21 $\frac{1}{2}$ "

Depth 19"

GENERAL DESCRIPTION

The VHE-44A-1 is a high fidelity table model phonograph having four tubes and a selenium rectifier operating on 105-125 volts, 60 cycles A.C. It has a modern style cabinet in mahogany, walnut, blond mahogany, or oak finish.

A 3 speed (33 $\frac{1}{3}$, 45, and 78 RPM) record changer is used. It utilizes a plug in head equipped with a ceramic dual-stylus pickup to mate with its die-cast aluminum tone arm. A well for the 45 RPM spindle is provided in the cabinet.

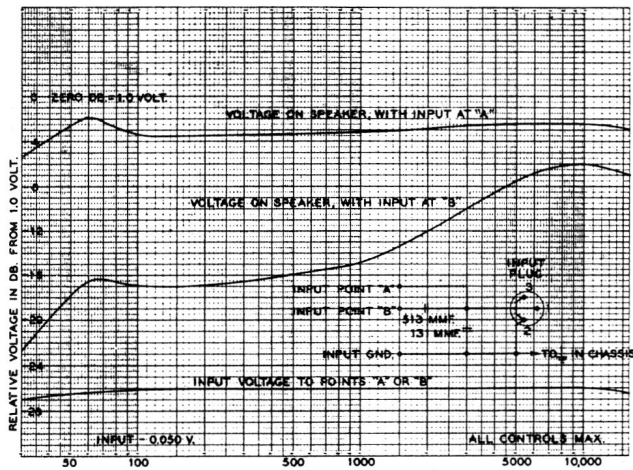
The amplifier has three controls marked "LOUDNESS", "BASS", and "TREBLE", which operate in a clockwise direction for maximum response. Each control is marked with numbers from 0 to 10. The amplifier is designed to give two watts output with less than 1% distortion from 100 cycles to 10,000 cycles. This 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 is provided with a means of using an external loudspeaker, (SPK-8). A switch located in the rear of the cabinet selects the internal loudspeaker, external loudspeaker, or both. The load impedance is properly matched at all times during switching by selecting the proper taps on the output transformer. The system is polarized to maintain proper phasing of the loudspeakers.

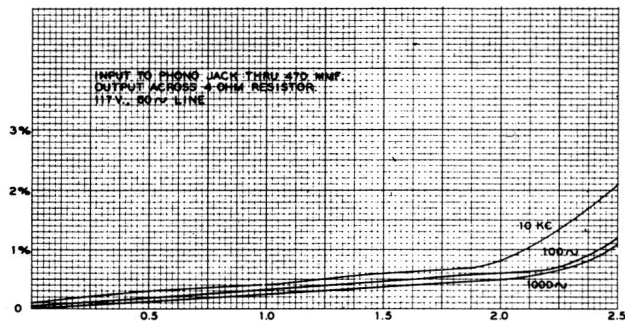
SPK-8

The SPK-8 is a companion loudspeaker for the VHE-44A-1, and is provided in a console cabinet. Fifty (50) feet of cable which plugs into the back of the main cabinet is supplied. The loudspeaker mechanism is the same as that used in the complete instrument.

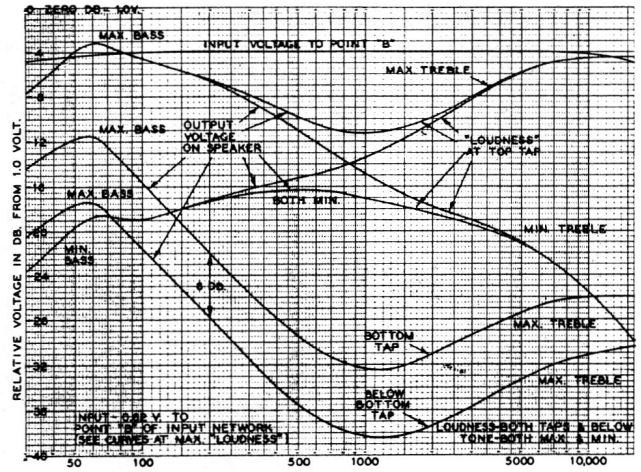


Overall Frequency Response using "Dummy Pickup"

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



Power Output vs. Distortion

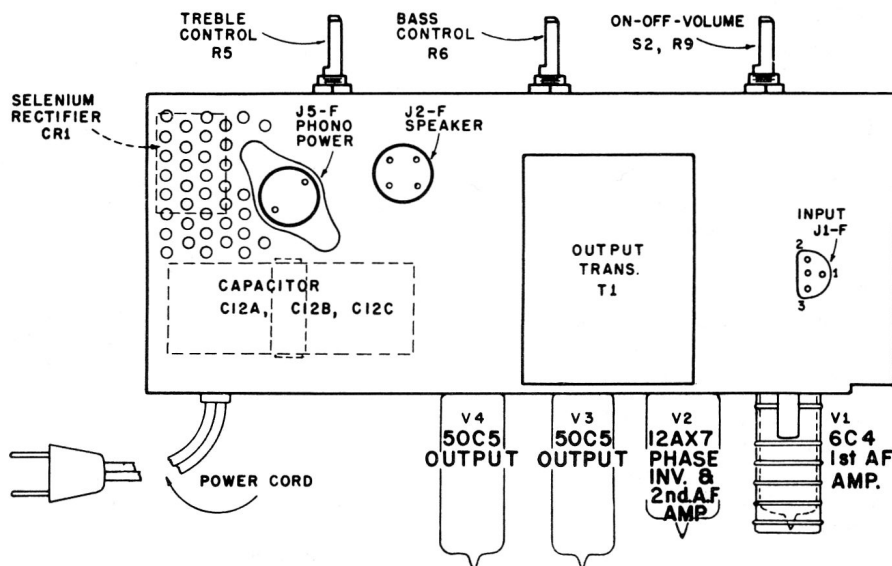


Tone Control and Loudness Positions vs. Frequency Response.

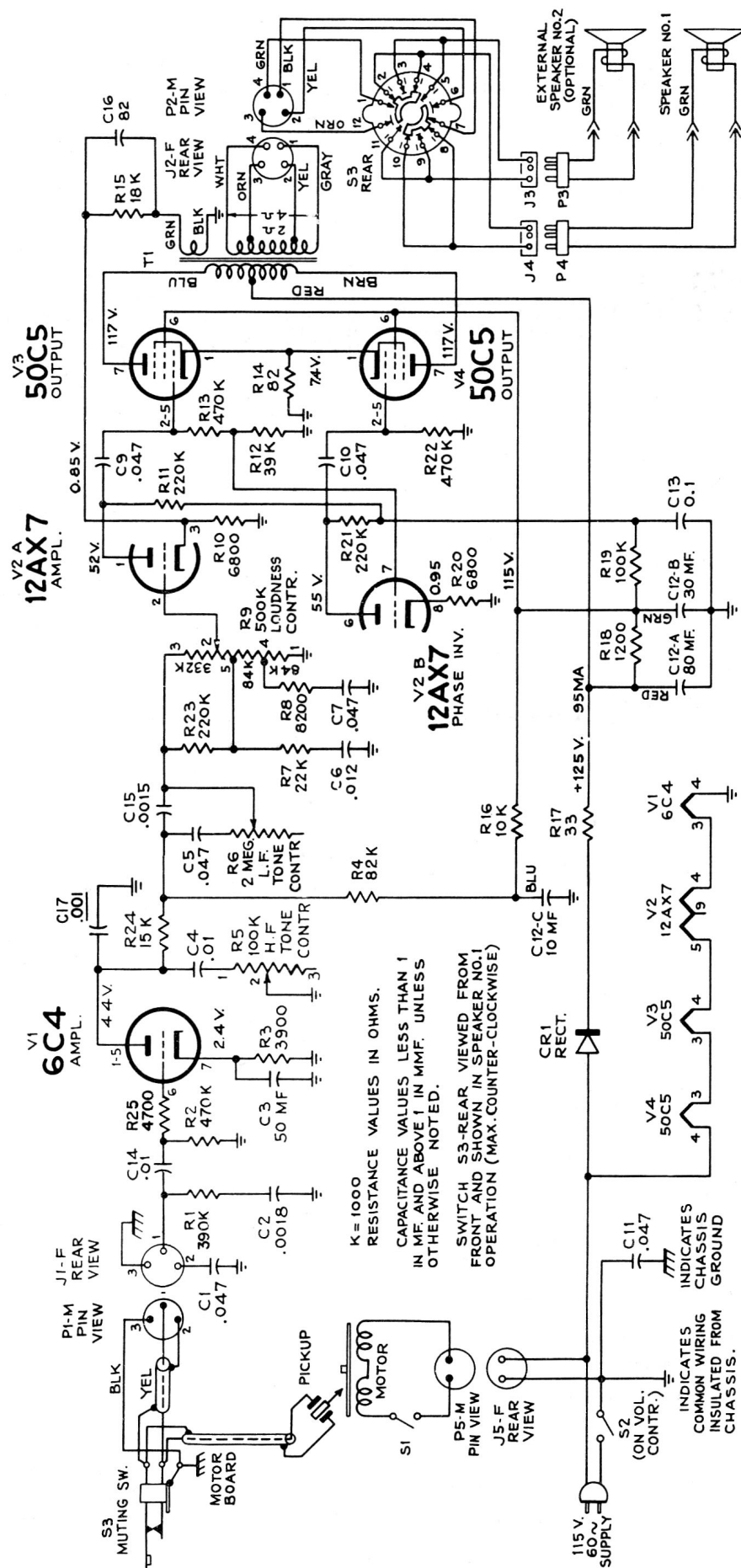
THE PERFORMANCE CURVES SHOWN WERE TAKEN FROM PRODUCTION INSTRUMENTS AND ARE CONSIDERED TYPICAL SLIGHT VARIATIONS IN RESPONSE CAN BE EXPECTED WITH OTHER UNITS.

CRITICAL LEAD DRESS

1. Dress all capacitors except C4 and C5 against chassis.
2. Dress R17 at least 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



Schematic Diagram

REPLACEMENT PARTS FOR MODEL VHE-44A-1

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., 6 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)	74879	Connector—2 contact (polarized) female connector for speaker leads (J3, J4)
	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)	74882	Connector—2 contact (polarized) male connector for speaker cable (P3, P4)
	Connector—2 contact female connector for motor cable (J5)	74192	Connector—3 contact male connector for pickup cable (P1)
36422	Connector—3 contact female connector for pickup cable (J1)	39153	Connector—4 contact male connector less shell for speaker cable (P2)
38853	Connector—4 contact female connector for speaker (J2)	78611	Decal—Control function decal for mahogany instruments
78616	Control—H.F. tone control (R5)	78612	Decal—Control function decal for oak instruments
78615	Control—L.F. tone control (R6)	74273	Decal—"Victrola" decal
78588	Control—Volume control and power switch (R9, S2)	78377	Foot—Felt foot
S-4367	Cord—Power cord and plug	78613	Grille—Metal grille for mahogany instruments
74838	Grommet—Power cord strain relief (1 set)	78614	Grille—Metal grille for oak instruments
78101	Rectifier—Selenium rectifier (CR1)	S-9724	Knob—Speaker switch knob—brown—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, $\pm 10\%$, $\frac{1}{2}$ watt (R3) 6800 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R10, R20) 8200 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R8) 10,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R16) 15,000 ohms $\pm 10\%$, $\frac{1}{2}$ watt (R24) 18,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R15) 22,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R7) 39,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R12) 47,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R25) 82,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R4) 100,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R19) 220,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R11, R21, R23) 390,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R1) 470,000 ohms, $\pm 10\%$, $\frac{1}{2}$ watt (R13, R22, R2)	S-9725	Knob—Speaker switch knob—medium beige—for oak instruments
73584	Shield—Tube shield for V1	78576	Knob—Volume or tone control knob—maroon—for mahogany instruments
73117	Socket—Tube socket, 7 pin, miniature, wafer for V1, V3, V4	78577	Knob—Volume or tone control knob—medium beige—for oak instruments
76971	Socket—Tube socket, 9 pin, wafer for V2	72692	Hinge—Cabinet lid hinge for mahogany instruments
78587	Transformer—Output transformer (T1)	78609	Hinge—Cabinet lid hinge for oak instruments
	Speaker Assemblies	77012	Nameplate—"RCA Victor" nameplate
S-9973	Speaker—8" PM speaker complete with cone and voice coil	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 $1\frac{1}{4}$ " 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
		78618	Switch—Speaker switch (S4)
			External Speaker Assemblies SPK-8
		X3349	Cloth—Grille cloth for mahogany or walnut instruments
		X3371	Cloth—Grille cloth for oak instruments
		75474	Connector—Single contact male connector for external speaker cable
		74882	Connector—2 contact (polarized) male connector for external speaker cable
		78594	Nameplate—"RCA Victor" nameplate
		73634	Nut—Speednut for speaker mounting screws
		77013	Nut—Speednut for "RCA Victor" nameplate
		78606	Pull—Door pull for mahogany or walnut instruments
		78607	Pull—Door pull for oak instruments

APPLY TO YOUR RCA DISTRIBUTOR FOR PRICES OF REPLACEMENT PARTS