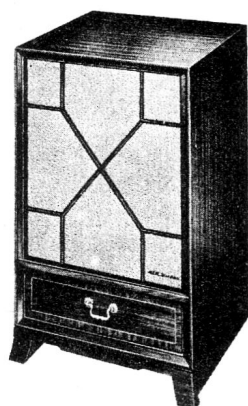


Model VHE-44A-1  
on Stand HF5STD



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.

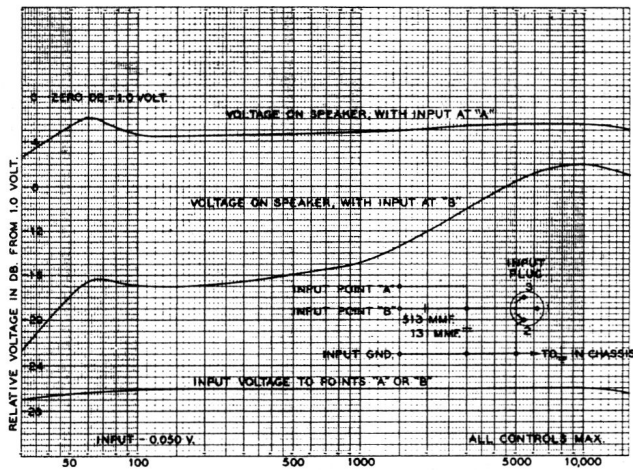
The amplifier has three controls marked "LOUDNESS", "BASS", and "TREBLE", which operate in a clockwise direction for maximum response. Each control is marked with numbers from 0 to 10. The amplifier is designed to give two watts output with less than 1% distortion from 100 cycles to 10,000 cycles. This 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.

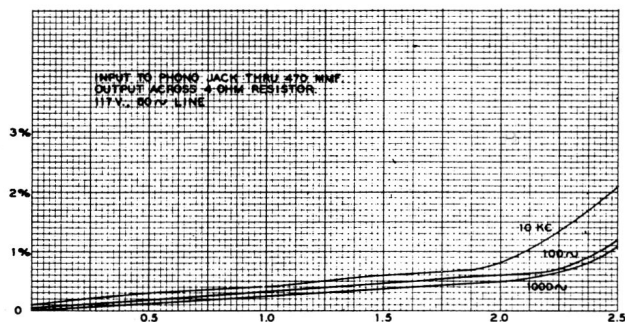
### SPK-8

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.

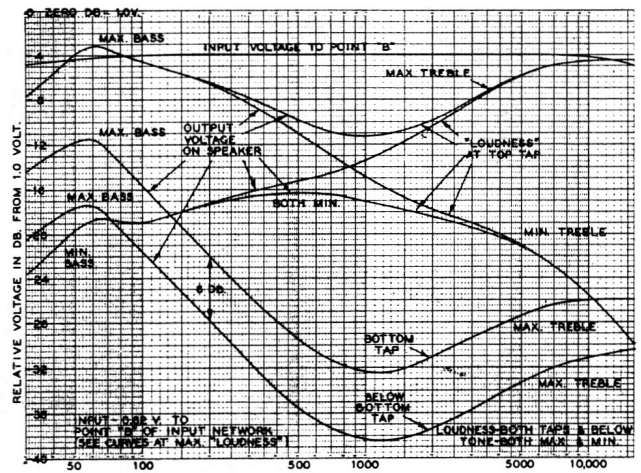


### Overall Frequency Response using "Dummy Pickup"

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



### Power Output vs. Distortion

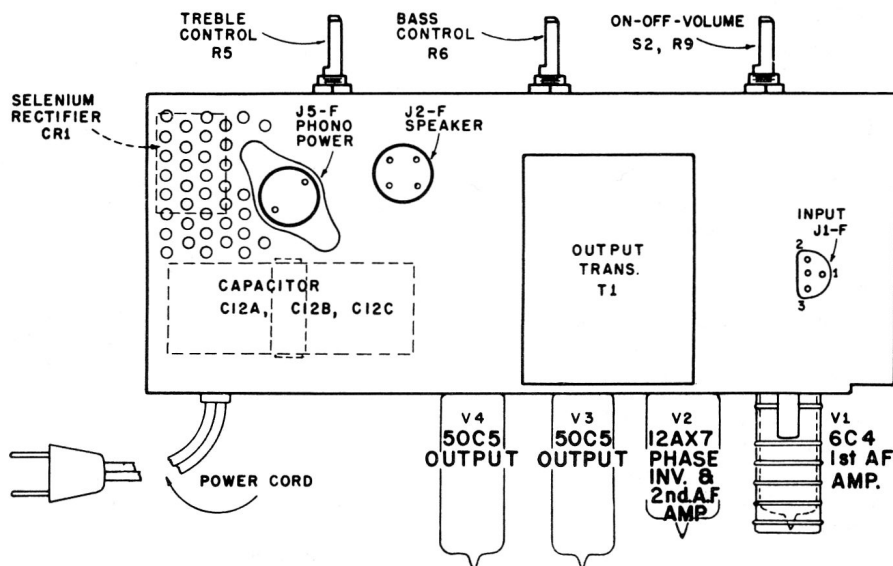


### *Tone Control and Loudness Positions vs. Frequency Response.*

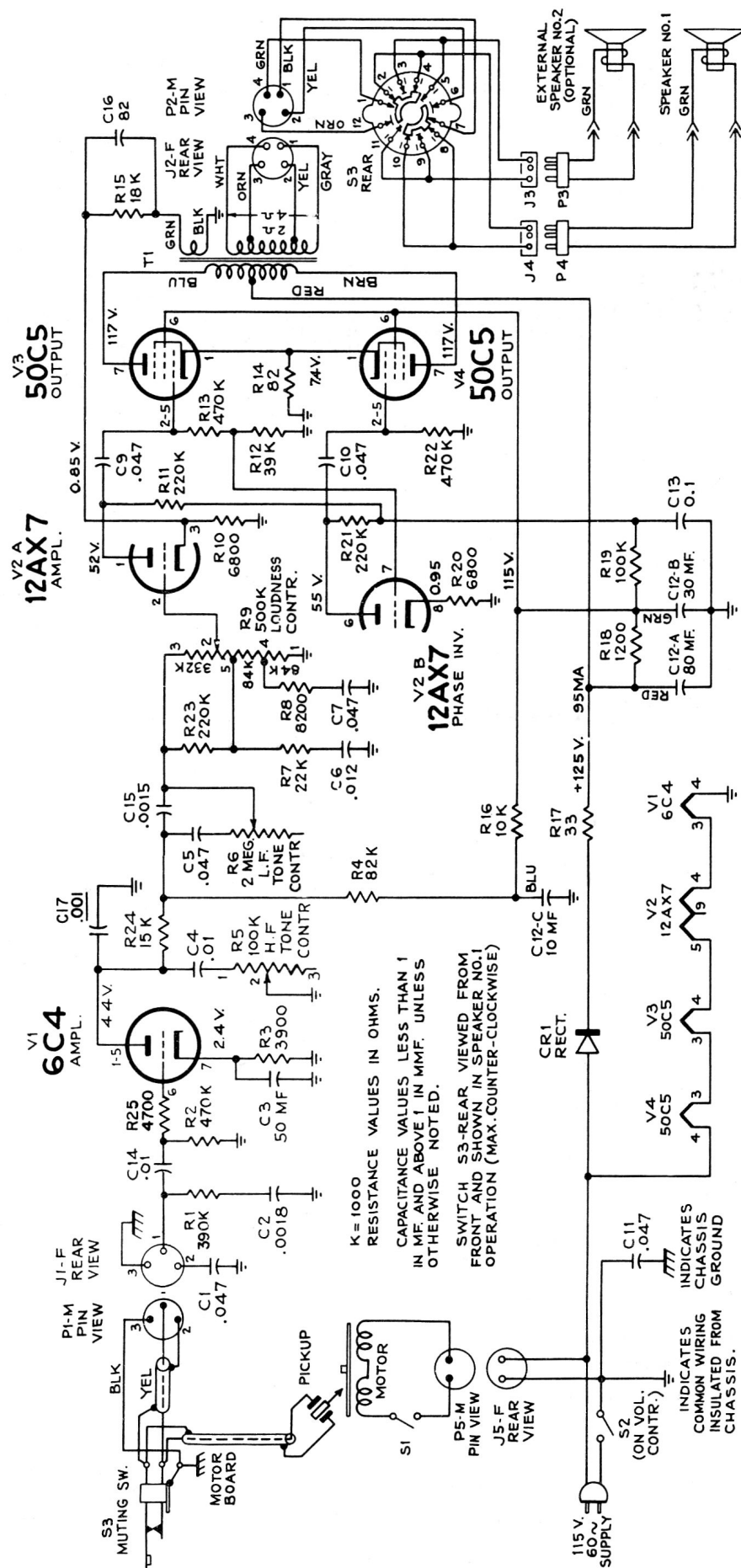
THE PERFORMANCE CURVES SHOWN WERE TAKEN FROM PRODUCTION INSTRUMENTS AND ARE CONSIDERED TYPICAL SLIGHT VARIATIONS IN RESPONSE CAN BE EXPECTED WITH OTHER UNITS.

### 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                                                            |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|
|           | <b>Amplifier Assemblies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           | <b>Miscellaneous</b>                                                        |
| 74850     | Capacitors—Fixed, ceramic, insulated, High "K":<br>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:<br>50 mfd., 6 volts (C3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 75474     | Connector—Single contact male connector for speaker cable                   |
| 78617     | comprising: 1 section of 80 mfd., 150 volts,<br>1 section of 30 mfd., 150 volts and<br>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:<br>.0015 mfd., 600 volts (C15)<br>.01 mfd., 400 volts (C4, C14)<br>.012 mfd., 200 volts (C6)<br>.047 mfd., 200 volts (C7)<br>.047 mfd., 400 volts (C1, C5, C9, C10, C11)<br>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:<br>33 ohms, $\pm 10\%$ , 1 watt (R17)<br>82 ohms, $\pm 10\%$ , 1 watt (R14)<br>1200 ohms, $\pm 10\%$ , 1 watt (R18)<br>3900 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R3)<br>6800 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R10, R20)<br>8200 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R8)<br>10,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R16)<br>15,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R24)<br>18,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R15)<br>22,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R7)<br>39,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R12)<br>47,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R25)<br>82,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R4)<br>100,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R19)<br>220,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R11, R21, R23)<br>390,000 ohms, $\pm 10\%$ , $\frac{1}{2}$ watt (R1)<br>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                                 |
|           | <b>Speaker Assemblies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 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)                                                  |
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>External Speaker Assemblies<br/>SPK-8</b>                                |
|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 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