



# "RADIO AND VICTROLA" SERVICE TIPS

## IMPORTANT INFORMATION FOR YOUR SERVICE DEPARTMENT

PREPARED AND DISTRIBUTED BY RCA SALES CORPORATION, PRODUCT PERFORMANCE  
600 N. SHERMAN DRIVE, INDIANAPOLIS, 1, INDIANA

VOLUME XVI, ISSUE I

MARCH 12, 1965

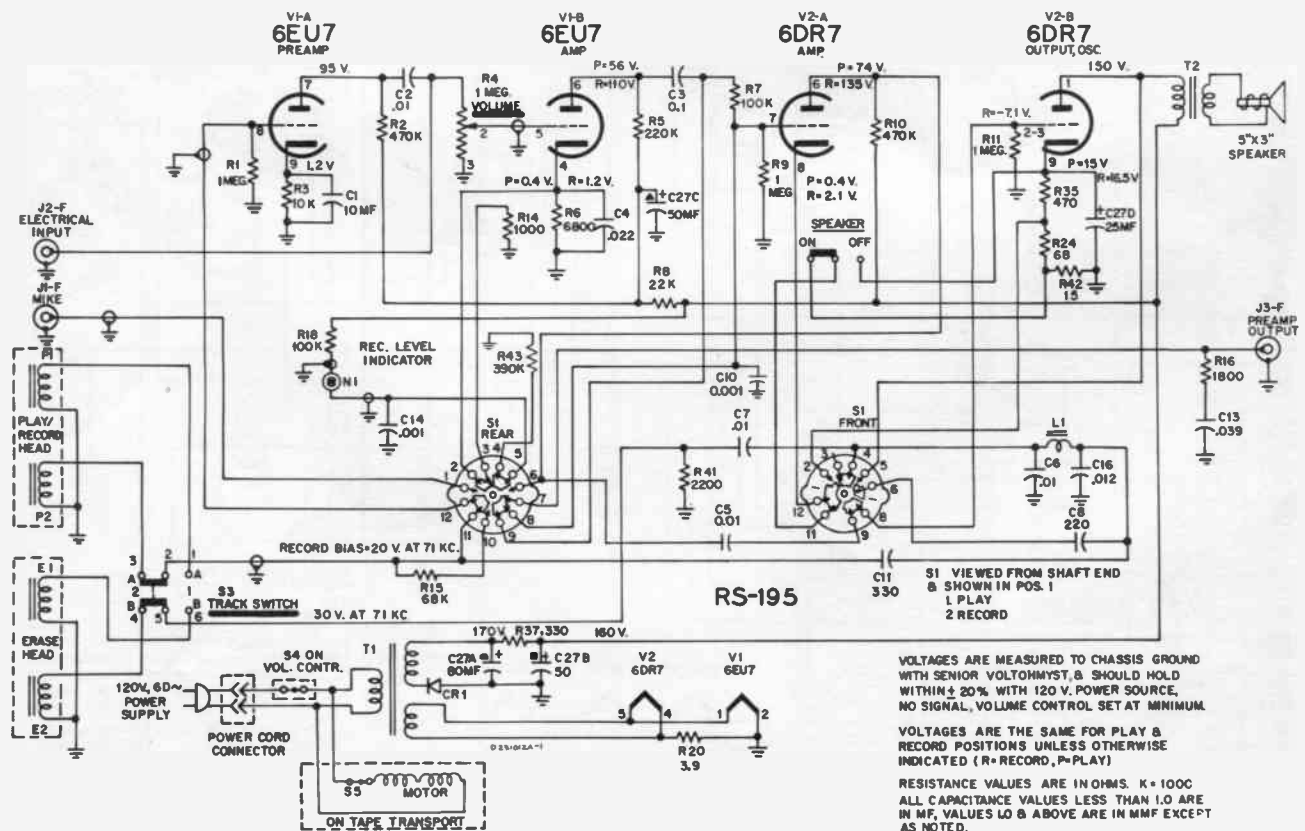
RS-195, A & B Tape Recorder Amplifier Chassis  
Switch Change

Service Data  
1961 Nos. 14, 14-S1

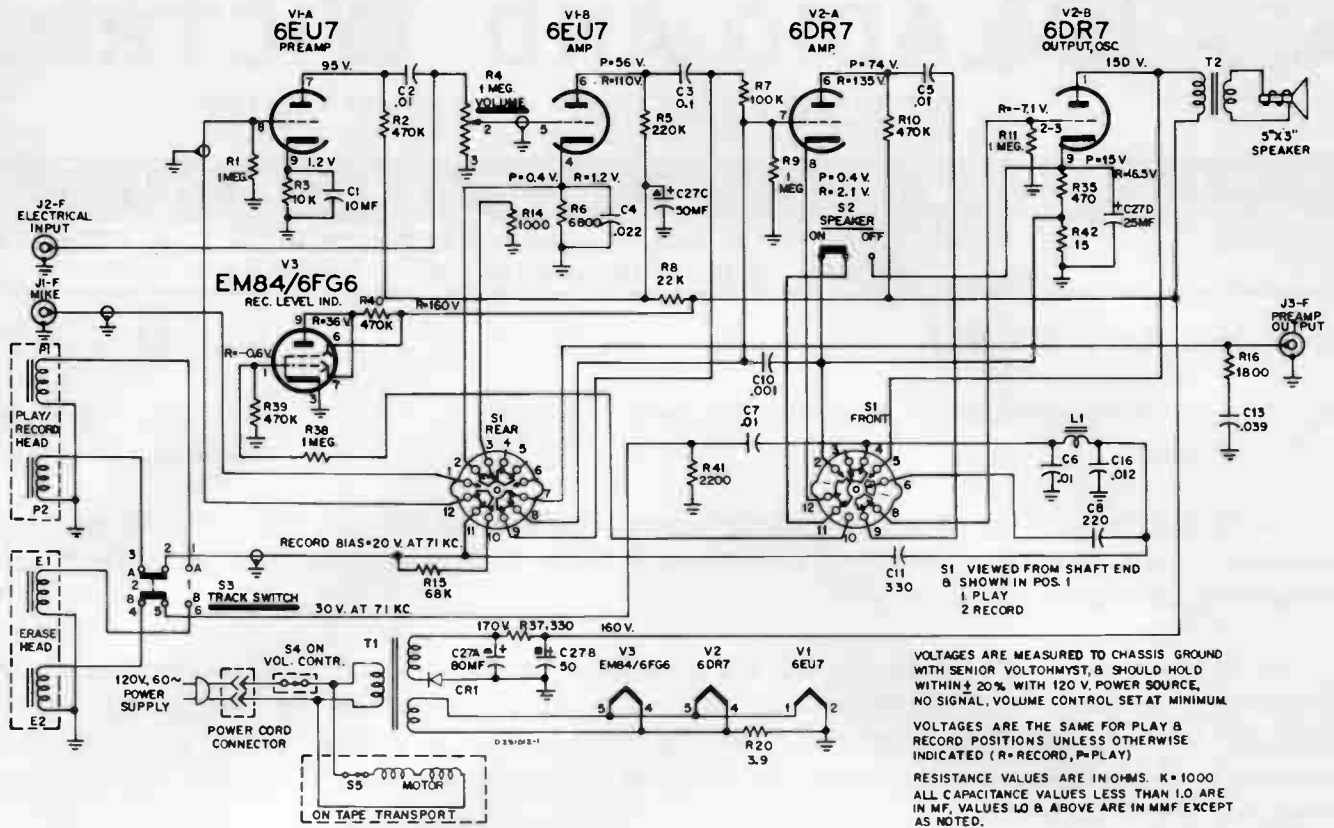
In the course of production some changes were made in the RS-195, RS-195A and RS-195B chassis. These changes consisted of a new switch wafer in S1, the "Play/Record" switch, and changes in the wiring of the switch.

In addition to the above, in the RS-195 chassis a resistor (R-43, 390,000 ohm) has been added from terminal 4 of S1 rear to ground. This resistor causes the "Recording Level" indicator to burn steadily, when the "Play/Record" switch is in the "Play" position, thus serving as a pilot light on playback. Its original function as a recording level indicator on "Record" is not changed.

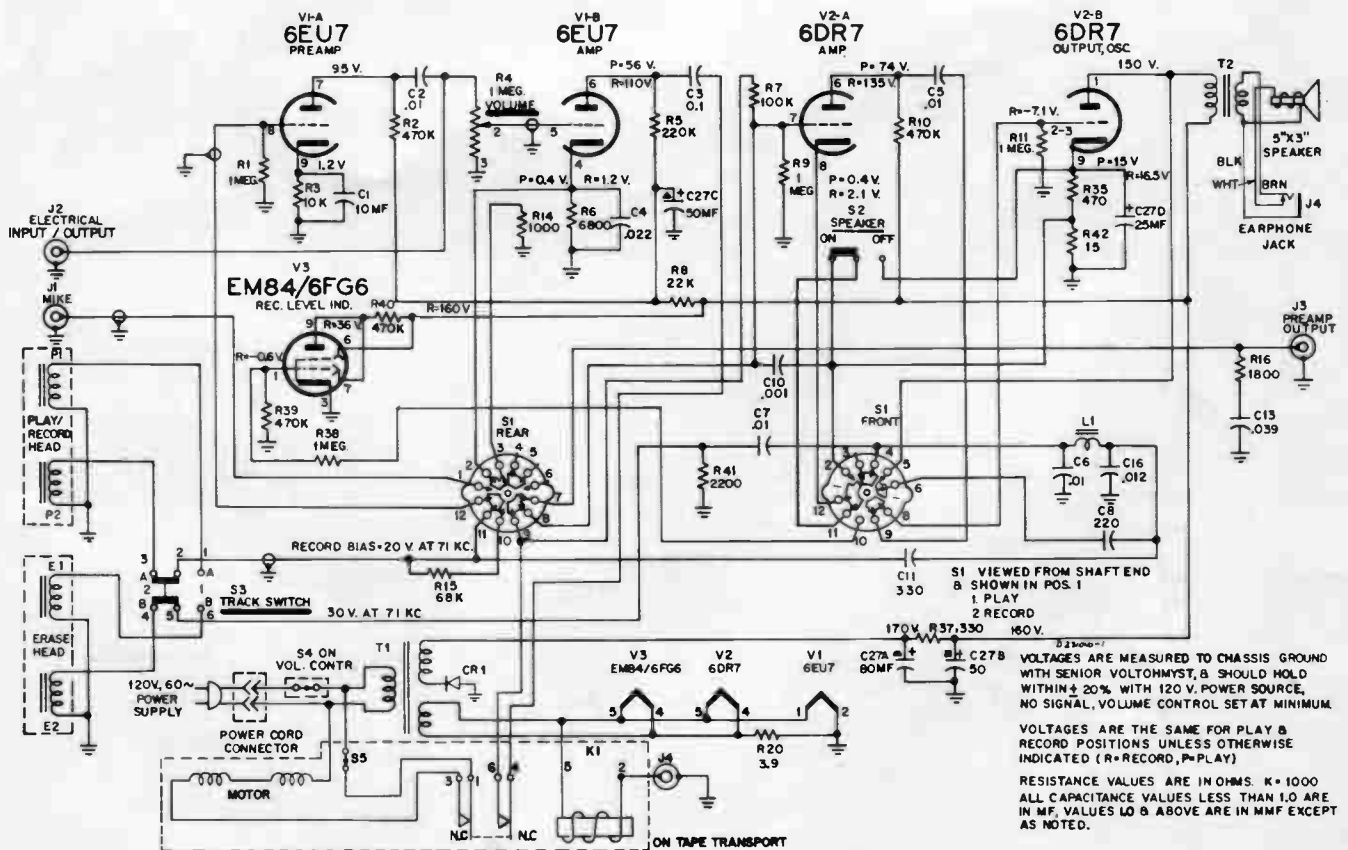
The revised schematic diagrams of the three chassis are reproduced herein.



Schematic Diagram RS-195



Schematic Diagram RS-195A



Schematic Diagram RS-195B



# "R" RADIO AND "V" VICTROLA "® SERVICE TIPS

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600 N. SHERMAN DRIVE, INDIANAPOLIS, 1, INDIANA

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JUNE 30, 1965

TCT-3 Tape Transport.

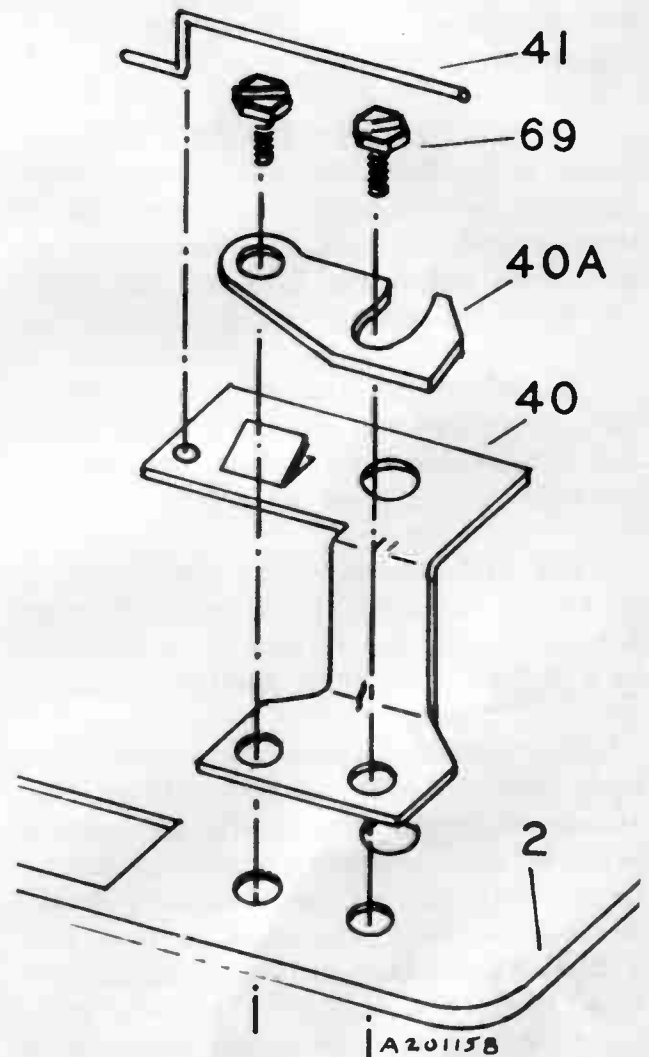
Service Data  
1961 No. 15

Mechanism fails to shut-off at end of play.  
Grooving of pressure roller.

One of the major causes of wearing and grooving of the pressure roller is non-tripping of the transport mechanism at the end of the tape. This condition will normally occur at the end of play, particularly when in the  $1\frac{7}{8}$  speed position, seldom at the end of rewind.

A correction for this non-tripping is to install a "Trip Force Adjustment Cam" (40A) (see illustration). The cam is installed between the screws mounting the control pivot bracket (40) to the motorboard, and the bracket, as shown in the illustration. Its purpose is to act as a stop to limit the clockwise travel of the control pivot assembly in the play position thus effectively reducing the force required to trip the mechanism. It is adjusted by moving the cam in or out, as permitted by the slot, till the point is obtained where the mechanism will trip easily at the end of the tape.

The cam is obtainable from Parts & Accessories. It is available by itself under stock no. 116375 and is also packaged, along with two longer mounting screws, with the pressure roller (stock no. 110276).



## Transistor Lead Identification

In the past a color dot was normally placed on the side of a transistor to identify the position of the collector lead. Present usage, however, does not always comply with this position of the color dot. It is also possible that the color dot will be omitted entirely as a lead identification.

Therefore, all color dot lead identification as given in any service data should be disregarded. Always use the position of the leads as shown in the service data or in the transistor manual for element identification, since this is standardized.

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RC-1218 Chassis	Service Data
AFC and Stereo	1964 No. 21
Indicator Lamps	

The "AFC" and "FM STEREO" indicator lamps in the RC-1218 AM/FM tuner have different current/voltage ratings, and if interchanged will result in abnormal operation of the FM Stereo indicator and pilot-carrier-switch circuit (Q304).

The FM-STEREO indicator lamp (DS-6), stock no. 115269, is a GE #2107 lamp. (Rating: 0.04 amperes at 10 volts). It is identified by a BROWN bead in the lamp.

The AFC indicator lamp (DS-5), stock no. 115270, is a GE #2112 lamp. (Rating: 0.2 amperes at 6.3 volts). It is identified by a YELLOW or PINK bead in the lamp.

Some confusion has occurred since other lamp suppliers may not have followed the same bead identification colors. If a question exists relative to proper lamp/circuit usage, the current/voltage rating of the lamp should be checked before using it in the "FM STEREO" indicator position. A high current rated lamp, if used in the FM-Stereo indicator position, can appear dim and operate normally for a short period of time, after which the lamp will increase in brightness, remaining lit at all times, possibly damaging the transistor (Q304).

RC-1211 Chassis	Service Data
Schematic Correction	1963 Nos. 12, 18

In the schematic diagram of the FM tuner, capacitor C113, 0.01  $\mu$ f connected from the feed-thru terminal "L" to ground, should be C119.

The replacement parts list is correct.

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4RG5	Service Data
Corrections	1963 No. 4

In the schematic diagram:

The polarity of capacitors C11 and C16 is shown reversed. The positive (+) side should be connected to the battery bus.

Terminals 2 and 3 of T5 are transposed. Terminal 2 connects to ground.

R10 should be 2200.

In the chassis layout:

Q7 and Q8 are transposed. Q7 should be the transistor nearest the edge of the board.

Terminals 1, 2, 3 and 4 of transformer T5 are transposed. Terminal 1 should be terminal 4, terminal 4 should be terminal 1, terminal 2 should be terminal 3 and terminal 3 should be terminal 2.

Elements B and E of transistor Q2 are transposed in the wiring view. The symbol is correct and the component view is correct.

C15 is changed from 0.33  $\mu$ f to 0.30  $\mu$ f and the stock number is changed from 111250 to 108885.

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RC-1215 Chassis	Service Data
Schematic Correction	1963 No. 15
	1964 Nos. 4, 18, 19

In the schematic diagram of the FM tuner, capacitor C13, 0.01  $\mu$ f connected from the feed-thru terminal "L" to ground, should be C19.

The replacement parts list is correct.



# "R" RADIO AND "V" VICTROLA "® PARTS TIPS

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VOLUME XVI ISSUE ■ 1

DECEMBER 30, 1965

RP-219-49 Amplifier  
Parts List Changes

Service Data  
1964 No. 20

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: R1		Resistor - 10 ohm, $\pm 10\%$ , 2 w wirewound
R9	502210	Resistor - 1000 ohm, $\pm 10\%$ , $\frac{1}{2}$ w
R10	502210	Resistor - 1000 ohm, $\pm 10\%$ , $\frac{1}{2}$ w
To Read: R1		Resistor - 10 ohm, $\pm 10\%$ , 2 w, wirewound (Early Production)
R9	502210	Resistor - 1000 ohm, $\pm 10\%$ , $\frac{1}{2}$ w (Early Production)
R10	502210	Resistor - 1000 ohm, $\pm 10\%$ , $\frac{1}{2}$ w (Early Production)
Add: R1		Resistor - 12 ohm, $\pm 10\%$ , 2 w wirewound (Late Production)
R9	502168	Resistor - 680 ohm, $\pm 10\%$ , $\frac{1}{2}$ w (Late Production)
R10	502168	Resistor - 680 ohm, $\pm 10\%$ , $\frac{1}{2}$ w (Late Production)

3VB1, -2, VFP 05  
Parts List Addition

Service Data  
1962 No. 15  
1964 No. 5

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	115004	Button - rubber - for turntable (10/pkg.)

RS-206A Series  
Parts List Addition

Service Data  
1964 No. 16

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	116626	Circuit - printed board complete

RC-1218 B & C  
Parts List Change

Service Data  
1964 No. 21-S1

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: S1	115224	Switch - function
To Read: S1	115244	Switch - function

RC-1215 Series  
Parts List Addition

Service Data  
1963 No. 15  
1964 Nos. 4, 18, 19

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	115387	Socket - dial lights

RP-217, -218  
Parts List Change

Service Data  
1962 No. 17-S1

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: 162	111571	Spring - tone arm torque 0.195" O.D. x 0.57" long ...
To Read: 162	115151	Spring - tone arm torque 0.20" O.D. x 0.57" long, RP-217-3, -4, -62, A-12, A-22, A-22A, A-29, RP-218-12, -12A

RC-1216  
Parts List Addition

Service Data  
1964 No. 2

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	116627	Circuit - printed board complete

RC-1213  
Parts List Changes

Service Data  
1963 No. 5  
1964 No. 9  
1965 No. 1

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: R3	502115	Resistor - 150 ohm, $\pm 10\%$ , 1/2 w
R12	512218	Resistor - 1800 ohm, $\pm 10\%$ , 1 w
T4	110058	Transformer - output, RC-1213A AX, C, J, JX, K
T4	111534	Transformer - output, RC-1213B D, H, L
T4	111535	Transformer - output, RC-1213E F
	115179	Circuit - chassis sub-assembly, less tuning capacitor, volume control, oscillator coil, print- ed components and tubes
	108235	Cable - AC power
To Read: R3	502115	Resistor - 150 ohm, $\pm 10\%$ , 1/2 w, RC-1213B, E, F
R12	512212	Resistor - 1200 ohm, $\pm 10\%$ , 1 w
T4	110058	Transformer - output, RC-1213A AX, C, J, JX, K (for boards marked 962507-2 or -5)
T4	111534	Transformer - output, RC-1213B D, H, L (for boards marked 962507-2 or -5)
T4	111535	Transformer - output, RC-1213E F (for boards marked 962507-2 or -5)
	115179	Circuit - chassis sub-assembly, less C1, C4, C10, C11, PC1 R3, R6, T3, T4 and tubes (for boards marked 962507-2 or -5)
	115325	Cable - AC power, RC-1213A, AX
	108235	Cable - AC power, RC-1213B, E, F
	115326	Cable - AC power, RC-1213C, D, H, K, L, P
	115821	Cable - AC power, RC-1213J, JX
Add: R3	502110	Resistor - 100 ohm $\pm 10\%$ , 1/2 w RC-1213A, H
T4	115298	Transformer - output, RC-1213A, AX, C, J, JX, K (for boards marked 962507-6)
T4	115299	Transformer - output, RC-1213B, D, H, L (for boards marked 962507-6)
T4	115300	Transformer - output, RC-1213E, F (for boards marked 962507-6)
	115301	Circuit - chassis sub-assembly, less C1, C4, C10, C11, PC1, R3, R6, T3, T4 and tubes (for boards marked 962507-6)
	111808	Pulley - pulley and shaft assy - for tuning drive (RC-1213F)

RC-1210  
Circuit and Parts Changes

Service Data  
1964 Nos. 10, 12

SYMBOL NO.	STOCK NO.	DESCRIPTION
		MISCELLANEOUS
Change:		
	74305	Spring - dial cord tension (RC-1210 all)
	110984	Tuner - FM tuner assy, less tubes (RC-1210E)
	106992	Cable - power cord (RC-1210E, F)
CR1	106379	Rectifier - silicon (RC-1210E, F)
CR1	110978	Diode - crystal (RC-1210E, F)
To Read:		
	115250	Spring - dial cord tension (RC-1210 all)
	111581	Tuner - FM tuner assy, less tubes (RC-1210E)
	106992	Cable - power cord (RC-1210E)
SR1	106379	Rectifier - silicon (RC-1210E, F)
CR101	110978	Diode - crystal (RC-1210E, F)
Add:		
	115326	Cable - power cord (RC-1210F)

TCT 3 and 3A  
Parts List Change

Service Data  
1961 No. 15-18

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: 22	111125	Pulley - take up pulley and bearing with clutch disc assembly (includes Ill. 22, 23, 24)
40		Bracket - control pivot
To Read: 22	111125	Pulley - take up pulley and bearing with clutch disc assembly (includes Ill. 22 and 24)
40	115187	Bracket - control pivot
Reinstate: 23A	110724	Spring - clutch spring assembly - for Ill. #15A
23B		Nut - Hex locking nut - 0.125 x 40 - for Ill. #23A

YGS 11J  
Parts List Change

Service Data  
1965 No. 26

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:		
	117388	Turntable - take up (plastic)

VFP 32  
Parts List Change

Service Data  
1964 No. 15

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: X4955		Cabinet - center section less tray and speaker housings
X4958		Cabinet - changer tray
X4957		Cabinet - L.H. speaker
X4956		Cabinet - R.H. speaker
To Read: X4955		Cabinet - center section less tray and speaker housings (VGP 32E)
X4958		Cabinet - changer tray (VGP 32E)
X4957		Cabinet - L.H. speaker (VGP 32E)
X4956		Cabinet - R.H. speaker (VGP 32E)
Add: X6007		Cabinet - center section less tray and speaker housings (VGP 32G)
X6006		Cabinet - changer tray (VGP 32G)
X6008		Cabinet - L.H. speaker (VGP 32G)
X6009		Cabinet - R.H. speaker (VGP 32G)

RC-1210  
Circuit and Parts Changes

Service Data  
1962 No. 13

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: C31		RC-1210A - upper schematic
To Read: C34		Capacitor - ceramic, 330 $\mu$ f, +100-0%, 500 v
Add: C34		Capacitor - ceramic, 3300 pf, $\pm$ 20%, 500 v
		RC-1210B - lower schematic
		Capacitor - ceramic, 3300 pf, $\pm$ 20%, (connect from junction R32, R11 to ground)

4RH1  
Parts List Change

Service Data  
1963 No. 1

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change:	110738	Jack - Earphone
To Read:	115197	Jack - Earphone

4-VF-146, -156  
Parts List Change

Service Data  
1963 No. 15

SYMBOL NO.	STOCK NO.	DESCRIPTION
UNDER MISCELLANEOUS ON PAGE 12		
Change:	111302 X5486	Washer - tuner mounting Lid - upper, walnut, 4-VF-146, -156
To Read:	111302 X5490	Washer - stereo indicator lamp mounting Lid - upper, walnut, 4-VF-146, -56
In the "Schematic Diagram" on page 8 change J415 and P615 to read J414 and P414 (changer power cable).		

4VF3, 4, 5 Series  
Parts List Changes

Service Data  
1963 No. 12

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change:	111507 110796	Hinge - cabinet lid, 4VF304 Hinge - support, 4VF325, 326, 348, 349, 4VF5
To Read:	111507 110796	Hinge - front decorative, 4VF304 Hinge - support, 4VF304, 325, 326, 348, 349, 4VF5
Add:	X5558	Cloth - grille cloth, weave and baffle board assembly, 4VF446

RS-212  
Parts List Addition

Service Data  
1964 No. 23

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add: C420	115260	Capacitor - electrolytic, 1500 $\mu$ f +100-0%, 35 v
R434	115350	Resistor - 2 ohm, $\pm$ 10%, 4 w, wirewound

3RA6  
Pointer Change

Service Data  
1962 No. 10

The dial pointer in the subject instrument has been changed.

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change:	110778	Pointer - control dial - 3RA6
To Read:	110778A	Pointer - control dial - 3RA6

RC-1219  
Parts List Addition

Service Data  
1964 No. 13

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add: C15		Capacitor - ceramic, 0.01 $\mu$ f, $\pm$ 20%, 100 v
C20		Capacitor - ceramic, 0.01 $\mu$ f, $\pm$ 20%, 100 v
Change: C17		Capacitor - electrolytic, 1.2 $\mu$ f, $\pm$ 10%, 15 v
To Read: C17	115180	Capacitor - electrolytic, 1.2 $\mu$ f, $\pm$ 10%, 15 v

RFD 15, 19  
Parts List Change

Service Data  
1964 No. 9

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change:	109288	Clip - knob retaining - tuning (RFD 15, 19)
To Read:	109288	Clip - knob retaining - tuning (RFD 15)
Add:	110547	Clip - knob retaining - tuning (RFD 19)

RS-203C  
Parts List Change

Service Data  
1964 No. 18-S1

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: C406		Capacitor - ceramic, 470 pf, $\pm$ 10%, 1000 v
To Read: C406	115259	Capacitor - ceramic, 470 pf, $\pm$ 10%, 1000 v

VFP 11, 21, 32, 43, 56, 58  
Parts List Addition

Service Data  
1964 Nos. 14, 15

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	115271	Motorboard - changer mounting

RC-1219A, B  
Parts List Change

Service Data  
1964 No. 13

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add: Q1	115275	Transistor - converter - 35168

VFT 4, 5, 6, 7, 8  
Parts List Corrections

Service Data  
1964 No. 19

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: R107	111746	Control - "Volume" ...
C419	111830	Capacitor - electrolytic, 1500 $\mu$ f ...
C410	115127	Capacitor - electrolytic, 500 $\mu$ f, +100-10%, 500 v
To Read: R107	111746	Control - "Loudness" ...
C409	111830	Capacitor - electrolytic, 1500 $\mu$ f ...
C410	115127	Capacitor - electrolytic, 500 $\mu$ f, +100-10%, 50 v

RC-1214A, B  
Part Change

Service Data  
1963 Nos. 4, 14

SYMBOL NO.	STOCK NO.	DESCRIPTION
Change: C15	111250	Capacitor - plastic, 0.33 $\mu$ f, $\pm$ 20%, 50 v
To Read: C15	108885	Capacitor - plastic, 0.30 $\mu$ f, $\pm$ 20%, 50 v; N.P.
Add:	115420	Circuit - battery board, less contacts and jack

VFR 05, 1, 2, VFT 05, 1, 2  
Parts List Addition

Service Data  
1964 No. 18

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add: R601	502510	Resistor - 1 megohm, $\pm$ 20%, 1/2 w (connect from Read Lead (Rt. chan.) to Natural Lead (Left chan. - not shield) of changer audio cable)

RFG 25  
Parts List Addition

Service Data  
1964 No. 13

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	115416	Circuit - printed circuit board, complete

RGC 23, 29, 37, 42, 43  
Parts List Addition

Service Data  
1965 No. 10

SYMBOL NO.	STOCK NO.	DESCRIPTION
Add:	117436	Insert - control panel