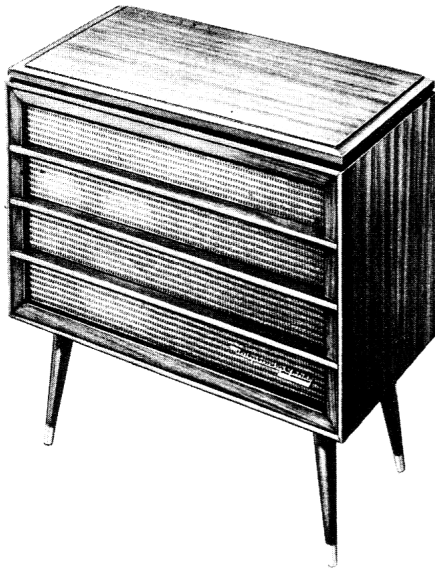




RCA VICTOR



*The "MARK IV"
Model HF-191
Mahogany, Maple or Oak*

High Fidelity Record Player

Model HF-191

SERVICE DATA

— 1956 No. 18 —

ISSUED BY

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

GENERAL DESCRIPTION

The HF-191 is a high fidelity console 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, maple or oak finish.

A special feature of Model HF-191 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.

A four-speed ($16\frac{2}{3}$, $33\frac{1}{3}$, 45, and 78 RPM) record changer is used. It utilizes a ceramic dual stylus pickup in a die-cast aluminum tone arm. A well for the $16\frac{2}{3}$ /45 RPM spindle is provided in the record changer.

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 or 5 watts with less than 10% 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 employs three speakers; the two $3\frac{1}{2}$ -inch speakers are mounted on plastic housings to give panoramic distribution of the higher frequencies.

**FOR RECORD CHANGER
SERVICE INFORMATION—
REFER TO COLLARO 456
SERVICE DATA**

ELECTRICAL & 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 to 10,000 cycles
2 watts with less than 1% distortion
5 watts with less than 10% distortion

DIMENSIONS (Overall)

Height $31\frac{1}{4}$ " Width 29" Depth $15\frac{5}{8}$ "

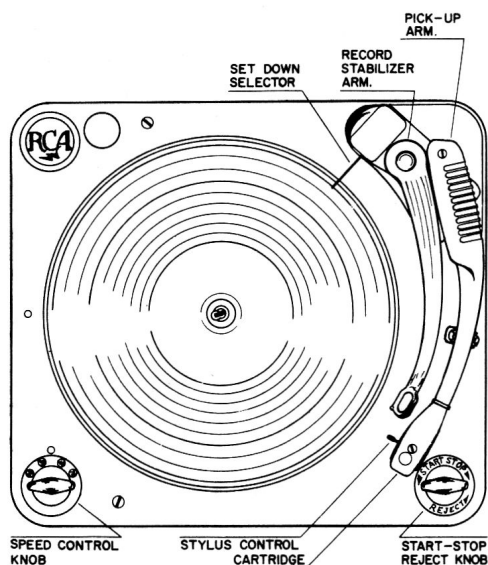
LOUDSPEAKERS

One 8" PM woofer"3.2 ohm v.c.
Two $3\frac{1}{2}$ " PM "tweeters"6.4 ohm v.c.

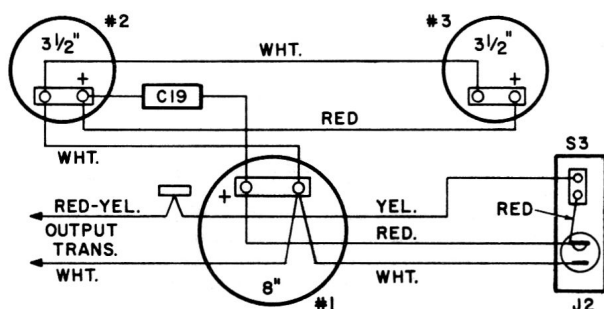
RECORD CHANGER (Collaro 456)

Turntable speed $16\frac{2}{3}$, $33\frac{1}{3}$, 45 or 78 r.p.m.
Record capacityUp to fourteen 7 inch
or twelve 10 inch.
or ten 12 inch.
or ten 10 in. and 12 in. intermixed.

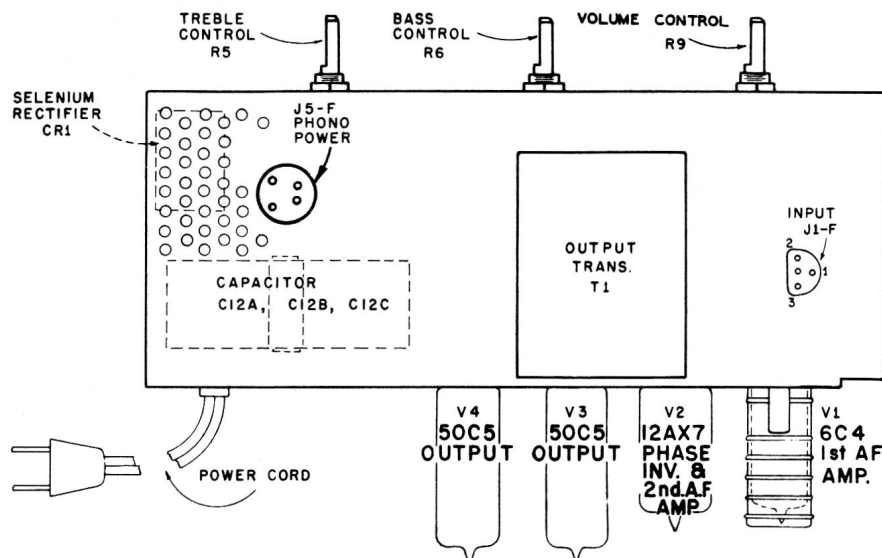
WEIGHT50 lbs. net



Record Changer Controls



Speaker Connection Diagram



Top View of Amplifier

RECORD CHANGER CONTROLS

The record changer has two controls on the motorboard and a stylus selector control on the pickup arm. The lever of the right control is the OFF-ON-REJECT control. Turning this lever to the start position energizes the motor and starts the turntable, when turned to the 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 to "stop".

The left knob on the Motorboard is the speed control. It has four positions; "16-2/3," "33," "45," "78," to select the turntable speed desired.

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 near the record changer for storage of the centerpost when not in use.

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.

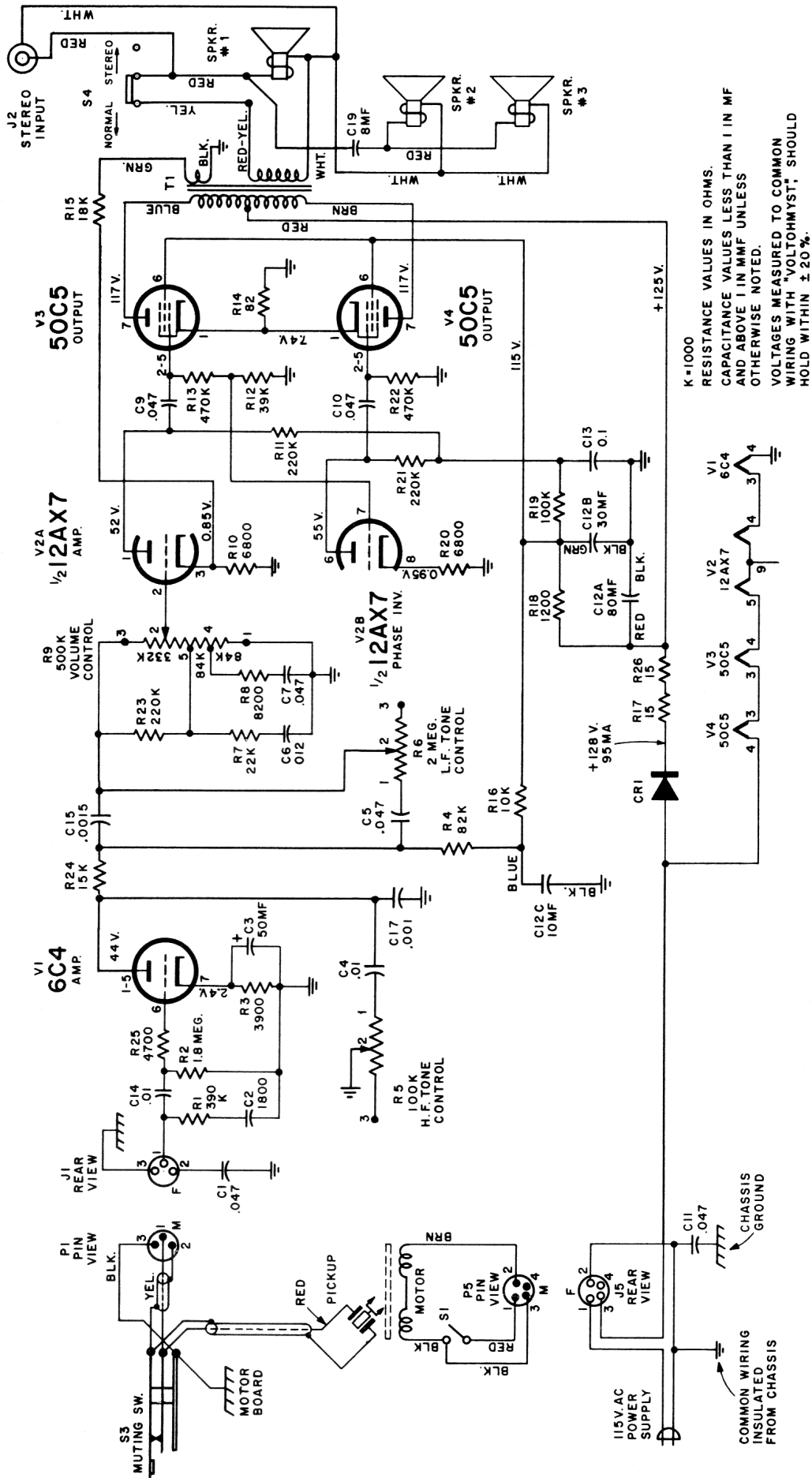
IMPORTANT

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.

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.



Schematic Diagram

REPLACEMENT PARTS

Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
AMPLIFIER ASSEMBLY RS-146F			R16		Resistor—Fixed, composition, 10,000 ohm $\pm 10\%$, $\frac{1}{2}$ w
C1	73553	Capacitor—Fixed, paper, 0.047 mf $\pm 10\%$, 400 v	R17		Resistor—Fixed, composition, 15 ohm $\pm 20\%$, 1 w
C2	74850	Capacitor—Fixed, ceramic, 1800 mmf $\pm 10\%$, 500 v	R18		Resistor—Fixed, composition, 1200 ohm $\pm 10\%$, 1 w
C3	78573	Capacitor—electrolytic, 50 mf, 6 volts	R19		Resistor—Fixed, composition, 100,000 ohm $\pm 10\%$, $\frac{1}{2}$ w
C4	73561	Capacitor—Fixed, paper, 0.01 mf $\pm 10\%$, 400 v	R20		Same as R10
C5	73553	Same as C1	R21		Same as R11
C6		Capacitor—Fixed, paper, 0.012 mf $\pm 10\%$, 200 v	R22		Same as R13
C7	73558	Capacitor—Fixed, paper, 0.047 mf $\pm 10\%$, 200 v	R23		Same as R11
C9, C10, C11	73553	Same as C1	R24		Resistor—Fixed, composition, 15,000 ohm $\pm 10\%$, $\frac{1}{2}$ w
C12A, B, C	78617	Capacitor—Electrolytic, 80/30/10 mf, 150 v	R25		Resistor—Fixed, composition, 4700 ohm $\pm 10\%$, $\frac{1}{2}$ w
C13	73551	Capacitor—Fixed, paper, 0.1 mf $\pm 10\%$, 400 v	R26		Same as R17
C14	101000	Capacitor—Fixed, paper, 0.01 mf $\pm 10\%$, 200 v	S1, S3		Pt. of Record Changer
C15		Capacitor—Fixed, paper, 0.0015 mf $\pm 10\%$, 600 v	S4	100185	See "Miscellaneous"
C17	75249	Capacitor—Fixed, paper, 0.001 mf $\pm 10\%$, 600 v	T1	S-21275	Transformer—Output transformer
C19	100509	See "Speaker Assembly"		70392	Cord—AC power cord & plug
CR1	S-21276	Rectifier—Selenium rectifier		73584	Shield—Tube shield for V1
J1	36422	Connector—3 contact female connector for phono pickup input cable		101375	Socket—Tube socket, 7 pin miniature for V1, V3 and V4
J2		See "Miscellaneous"		100474	Socket—Tube socket, 9 pin miniature for V2
J5	38853	Connector—4 contact female connector for phono motor cable	SPEAKER ASSEMBLIES		
R1		Resistor—Fixed, composition, 390,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	100465		Speaker—3 $\frac{1}{2}$ " PM speaker complete with cone.
R2		Resistor—Fixed, composition, 1.8 megohm $\pm 10\%$, $\frac{1}{2}$ w	78597		Speaker—8" PM speaker complete with cone.
R3		Resistor—Fixed, composition, 3900 ohm $\pm 10\%$, $\frac{1}{2}$ w	100467		Housing—Plastic housing for 3 $\frac{1}{2}$ " speakers (2 req'd)
R4		Resistor—Fixed, composition, 82,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	C19	100509	Capacitor—Electrolytic, 8 mf, 10 volt AC
R5	S-21278	Control—Treble tone control	MISCELLANEOUS		
R6	S-21279	Control—Bass tone control	J2	35787	Connector—Female pin connector for tape recorder
R7		Resistor—Fixed, composition, 22,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	S4	100185	Switch—Slide switch for stereophonic sound
R8		Resistor—Fixed, composition, 8200 ohm $\pm 10\%$, $\frac{1}{2}$ w	S-21273		Back—Cabinet back cover
R9	S-21277	Control—Volume control	X3573		Cloth—Grille cloth for blond oak cabinet
R10		Resistor—Fixed, composition, 6800 ohm $\pm 10\%$, $\frac{1}{2}$ w	X3582		Cloth—Grille cloth for mahogany cabinet
R11		Resistor—Fixed, composition, 220,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	X3574		Cloth—Grille cloth for maple cabinet
R12		Resistor—Fixed, composition, 39,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	100459		Cushion—Felt cushion for cabinet lid (2 req'd)
R13		Resistor—Fixed, composition, 470,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	102348		Escutcheon—Control knob escutcheon with tone & loudness calibrations
R14		Resistor—Fixed, composition, 82 ohm $\pm 10\%$, 1 w	101050		Ferrule—Brass ferrule for cabinet leg
R15		Resistor—Fixed, composition, 18,000 ohm $\pm 10\%$, $\frac{1}{2}$ w	102420		Hinge—Cabinet lid hinge (less screws)
			102347		Knob—Control knob with spring
			100641		Nameplate—"New Orthophonic High Fidelity RCA Victor" nameplate
			70999		Spring—Cabinet lid support spring
			30900		Spring—Retaining spring for control knob
			330720-96		Book—Instruction book

Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.