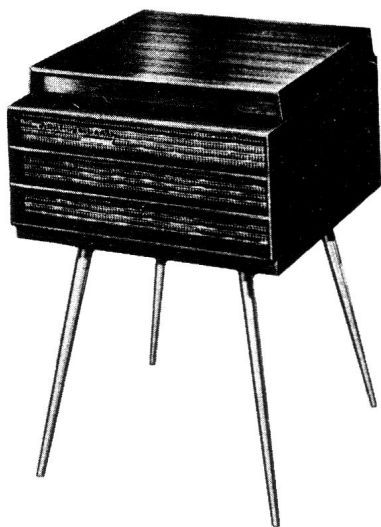




RCA VICTOR



The "MARK VI"
Model HF-190

High-Fidelity Record Player

Model HF-190

SERVICE DATA

— 1956 No. 17 —

ISSUED BY

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

DESCRIPTION

The HF-190 is a high fidelity console model phonograph having three tubes and a selenium rectifier operating on 105-125 volts, 60 cycles A.C. It has a modern style cabinet available in four finishes.

A special feature of Model HF-190 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 4-speed (16-2/3, 33-1/3, 45, and 78 RPM) record changer is used. It utilizes a dual-stylus pickup.

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 recommended normal setting of the

tone controls is "5" on each dial. At this setting and with the volume control at the top tap, the frequency response from the RCA New Orthophonic frequency record 12-5-49 is fairly flat from record to voice coil except for pickup irregularities and some bass boost. The amplifier is designed to give relatively high undistorted and maximum outputs by using a push-pull amplifier, large output transformer and high B+ voltage.

The instrument utilizes a 6 1/2" woofer and two 3 1/2" tweeters mounted on the front baffle in such a way as to give panoramic distribution of high frequencies throughout the room in which the set is placed.

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

SPECIFICATIONS

TUBE COMPLEMENT

- (1) RCA 12AX7 A.F. Amplifier & Phase Inv.
- (2) RCA 50C5 Output
- (3) RCA 50C5 Output

A selenium rectifier is used.

POWER SUPPLY RATING

115 volts, 60 cycles 50 watts

POWER OUTPUT

Undistorted 2.5 watts Maximum 3.5 watts

FREQUENCY RESPONSE 70 to 20,000 cycles

DIMENSIONS (Overall)

Height 25 1/2" Width 20" Depth 17 15/16"

LOUDSPEAKERS

- One 6 1/2" PM "woofer" 3.2 ohm v.c.
- Two 3 1/2" PM "tweeters" 6.4 ohm v.c.

RECORD CHANGER (COLLARO 456)

Turntable speed 16 2/3, 33 1/3, 45 or 78 r.p.m.

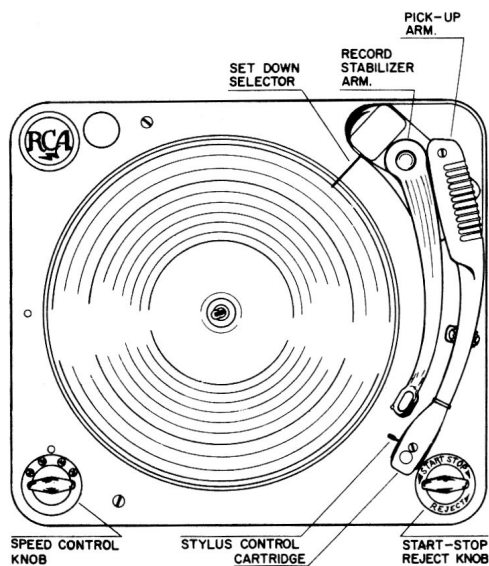
Record capacity Up to fourteen 7 inch

or twelve 10 inch.

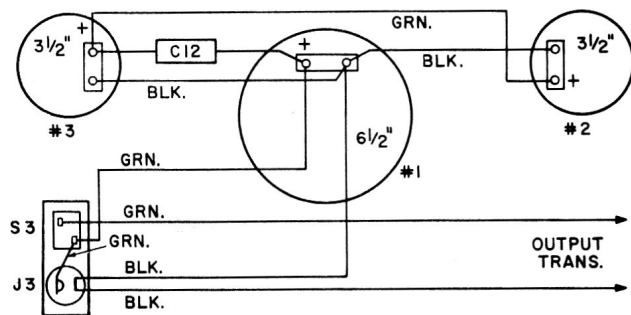
or ten 12 inch.

or ten 10 in. and 12 in. intermixed.

WEIGHT (Approx.) 30 3/4 lbs. net



Record Changer Controls



Speaker Connection Diagram

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; "16-2/33," "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.

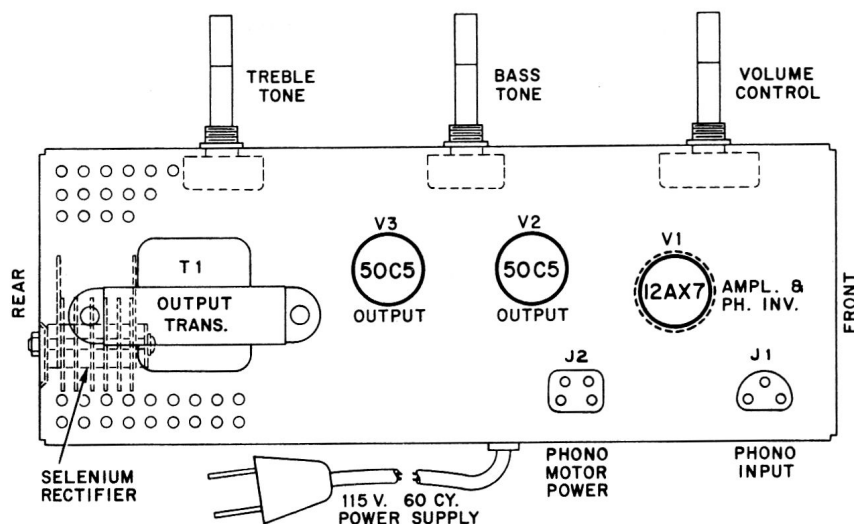
The removable centerpost is for use with 16-2/3 or 45 r.p.m. records having the large centerhole. It must be placed over the center spindle with the word "FRONT" FACING to the FRONT. Care should be exercised in inserting and removing the centerpost so as to prevent damage to smaller spindle.

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

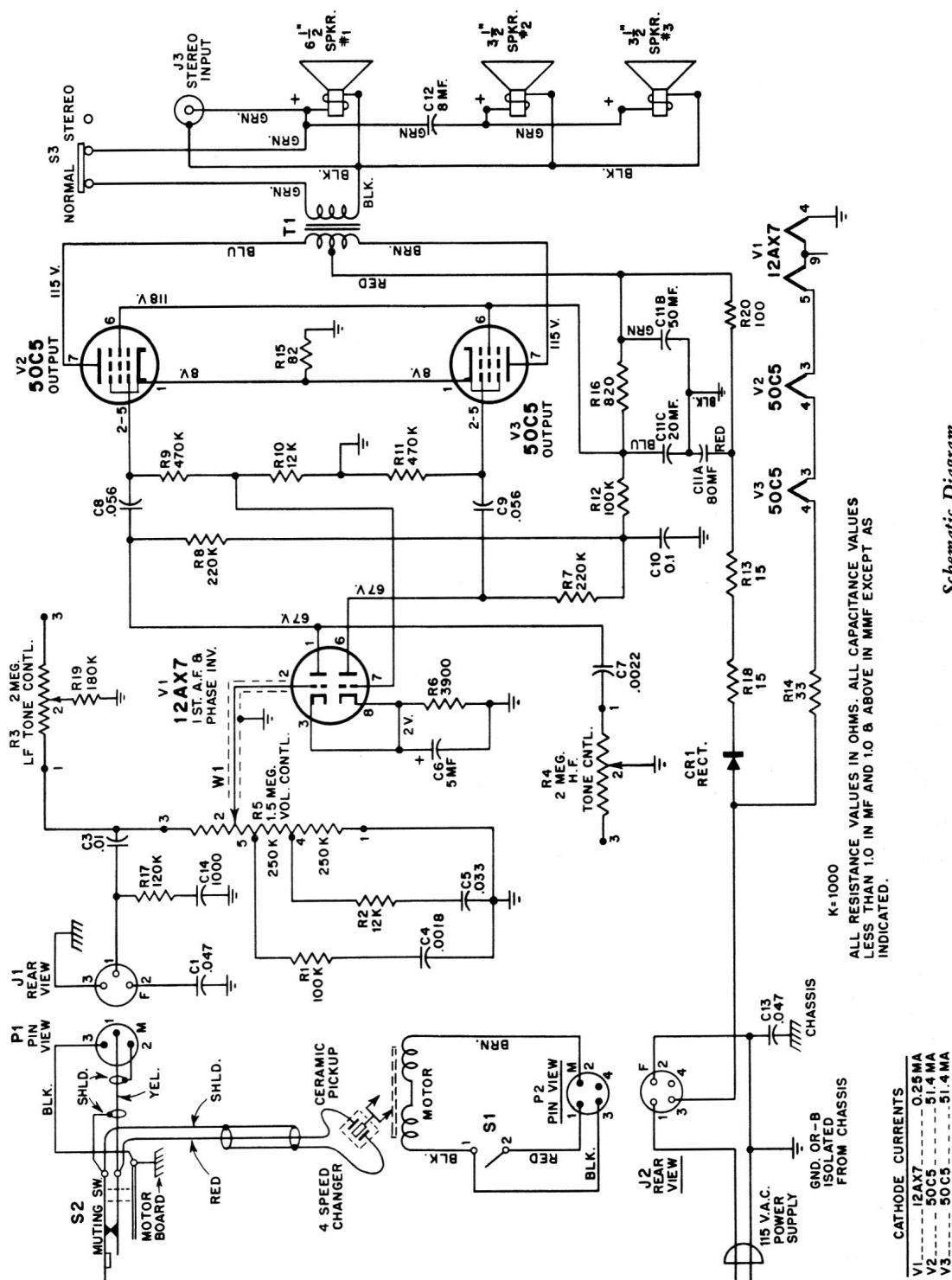
The three speakers must be connected as shown in the illustration at left. Improper connections may result in distorted or weak reproduction.



Top View of Amplifier

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					
C1	73553	Capacitor—Fixed, paper, 0.047 mf, $\pm 20\%$, 400 v.	T1	100466	Transformer—Output transformer
C3	73561	Capacitor—Fixed, paper, 0.1 mf, $\pm 10\%$, 200 v.		70392	Cord—Power line attachment cord and plug
C4		Capacitor—Fixed, paper, 0.0018 mf, $\pm 10\%$, 600 v.		76972	Shield—Tube shield for V1
C5		Capacitor—Fixed, paper, 0.033 mf, $\pm 10\%$, 200 v.		101699	Socket—Tube socket, 7 pin miniature for V2 and V3
C6		Capacitor—Electrolytic, 5 mf, 50 v.		100474	Socket—Tube socket, 9 pin miniature for V1
C7	73595	Capacitor—Fixed, paper, 0.0022 mf, $\pm 10\%$, 600 v.	RECORD CHANGER WIRING ASSEMBLY		
C8, C9	73791	Capacitor—Fixed, paper, 0.056 mf, $\pm 10\%$, 400 v.	P1	74192	Connector—3 contact male connector for phono pickup cable
C10	73551	Capacitor—Fixed, paper, 0.1 mf, $\pm 20\%$, 400 v.	P2	100510	Connector—4 contact male connector for phono power cable
C11A, C11B, C11C	S-21271	Capacitor—Electrolytic, 80/50/20 mf, 150 v.		100211	Connector—Closed end connector for motor leads
C12	100509	Part of Speaker Assembly	SPEAKER ASSEMBLY		
C13	73553	Same as C1		100465	Speaker—3½" PM speaker complete with cone,
C14		Capacitor—Fixed, mica, 1000 mmf, $\pm 10\%$, 300 v.		100464	Speaker—6½" PM speaker complete with cone,
CR1	100654	Rectifier—Selenium rectifier		100509	Capacitor—Electrolytic, 8 mf, 10 v. AC
J1	36422	Connector—3 contact female connector, phono pickup	C12	100467	Housing—Plastic housing for 3½" speakers (2 req'd)
J2	38853	Connector—4 contact female connector, phono power	MISCELLANEOUS		
R1		Resistor—Fixed, composition, 100,000 ohm, $\pm 10\%$, ½ w.	J3	35787	Connector—Stereophonic sound input connector
R2		Resistor—Fixed, composition, 12,000 ohm, $\pm 10\%$, ½ w.		S-21263	Escutcheon—Control knob escutcheon with tone and loudness calibrations
R3	S-21268	Control—Bass tone control		78377	Foot—Felt cabinet foot (4 req'd)
R4	S-21267	Control—Treble tone control		72692	Hinge—Cabinet lid hinge for mahogany or black mink cabinets
R5	S-21266	Control—Volume control		78609	Hinge—Cabinet lid hinge for oak or maple cabinets
R6		Resistor—Fixed, composition, 3900 ohm, $\pm 10\%$, ½ w.		S-21262	Knob—Control knob—grey, with spring
R7, R8		Resistor—Fixed, composition, 220,000 ohm, $\pm 10\%$, ½ w.		102350	Leg—Metal cabinet leg with plastic glide
R9		Resistor—Fixed, composition, 470,000 ohm, $\pm 10\%$, ½ w.		100641	Nameplate—"New Orthophonic High Fidelity RCA Victor" nameplate
R10		Same as R2		73203	Nut—Speednut, retainer for nameplate (5 req'd)
R11		Same as R9		30900	Spring—Control knob retaining spring
R12		Same as R1		77221	Support—Lid support for mahogany or black mink cabinets
R13		Resistor—Fixed, composition, 15 ohm, $\pm 20\%$, 1 w.		78610	Support—Lid support for oak or maple cabinets
R14		Resistor—Fixed, composition, 33 ohm, $\pm 20\%$, 1 w.		100185	Switch—Slide type switch for stereophonic sound
R15		Resistor—Fixed, composition, 82 ohm, $\pm 10\%$, 1 w.	S3	101787	Washer—1" O.D. black felt washer for control knobs
R16		Resistor—Fixed, composition, 820 ohm, $\pm 10\%$, 1 w.			
R17		Resistor—Fixed, composition, 120,000 ohm, $\pm 10\%$, ½ w.			
R18		Same as R13			
R19		Resistor—Fixed, composition, 180,000 ohm, $\pm 10\%$, ½ w.			
R20		Resistor—Fixed, composition, 100 ohm, $\pm 10\%$, 2 w.			

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

All parts subject to change or withdrawal without notice.