

Model SHP-361
Brown Leatherette



Model SHP-362



RCA VICTOR



Stereophonic Record Players

Models SHP-361, SHP-362

Record Changer Collaro Stereo Conquest

SERVICE DATA

— 1958 No. 12 —

ISSUED BY
SERVICE DIVISION

RCA VICTOR COMPANY, LTD.
MONTREAL, CANADA

ELECTRICAL AND MECHANICAL SPECIFICATIONS

TUBE COMPLEMENT

- (1) RCA 12AU6 Left Chan. A.F. Amplifier
 - (2) RCA 12AU6 Right Chan. A.F. Amplifier
 - (3) RCA 35C5 Left Channel Output
 - (4) RCA 35C5 Right Channel Output
- A selenium rectifier is used.

POWER SUPPLY RATING

115 volts, 60 cycles 50 watts

POWER OUTPUT

Undistorted 2.3 watts Maximum 3.5 watts

FREQUENCY RESPONSE 70 to 20,000 cycles

LOUDSPEAKERS

- One 6½" PM "woofer" 3.2 ohm impedance
- Two 3½" PM "tweeters" 6-8 ohm impedance

RECORD CHANGER

- Turntable speed 16⅔, 33⅓, 45 or 78 r.p.m.
- Record capacity Up to fifteen 7 inch
or twelve 10 inch.
or ten 12 inch.
or ten 10 in. and 12 in. intermixed.

Pickup (Stock No. 106771) Stereophonic Ceramic

GENERAL DESCRIPTION

The "Model SHP-362" is a stereophonic high-fidelity console model phonograph, housed in a modern style wood cabinet available in four finishes.

The "Model SHP-361" is a stereophonic high-fidelity phonograph housed in a brown leatherette carrying case having a two-tone woven grille cloth.

A four-speed automatic record changer, equipped with a stereophonic ceramic pickup, is used. One 6½-inch and two 3½-inch speakers are used. The frequency response is from 70 cycles to 20,000 cycles.

The amplifier has four tubes and a selenium rectifier; it is designed for operation on a 105 v. to 125 v. 60 cycle power supply. The three controls marked "LOUDNESS," "BASS," and "TREBLE" operate in a clockwise direction for maximum response. The loudness control knob is numbered from 0 to 10 with the top tap setting between 6 and 7. Normal position of the bass and treble control knobs is indicated by the letter "N" on each control knob. These tone control knobs are also marked with numbers 1 to 5 on both sides of the "N" for reference.

Either instrument may be used alone as a monaural phonograph or it may be used in conjunction with an external loud-

speaker system as a stereophonic phonograph. A slide-type switch is used to select between these two modes of operation. The amplifier has two separate single-ended output channels. When the instrument is used alone (without left channel external speaker system), the slide-type switch is set to place the output transformer secondaries in parallel.

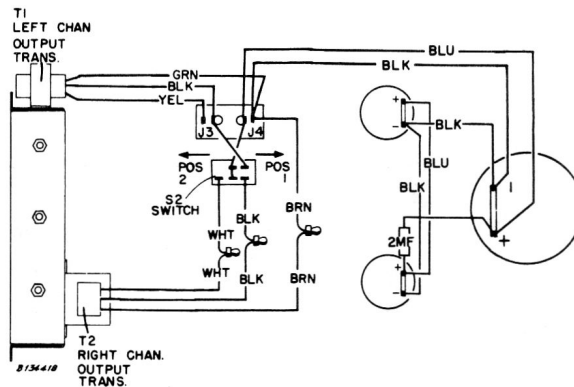
SUPPLEMENTARY INFORMATION

Issue	Subject
List related Service Letters	

SPEAKER CONNECTIONS

SHP-361, SHP-362

The three speakers must be connected as shown in the illustrations below. Improper connections may result in distorted or weak reproduction.



Speaker Connection Diagram

CHANNEL GAIN EQUALIZATION

Two gain equalization controls are provided to enable the gain of the two channels to be balanced.

These equalization controls (R15 and R25) are located on the front of the chassis and are accessible upon removal of the controls escutcheon. The LEFT CHANNEL gain control (R15) is located between the loudness control and the bass tone control. The RIGHT CHANNEL gain control (R25) is located between the two tone controls.

When adjusting these controls, three conditions must exist:

1. A **monaural signal input** must be used. This can be a monaural (test) record or it may be an audio signal applied simultaneously to both inputs of J1.
2. The **speaker selection switch (S2)** must be in the "INT. & EXT. SPKRS" position. This is necessary for the two channels to have independent outputs.
3. Both internal and external **speaker systems** must be connected or the outputs loaded equally with resistors. If output is measured with an output meter, a channel having no

speakers connected will have an abnormally high output voltage reading.

4. Adjust **BOTH** equalization controls to the **maximum clockwise** position.
5. Turn **counter-clockwise only** the gain control of the channel having the greater output until the point of equal output is reached.

NOTES

It is not necessary to measure the audio output while making the equalization adjustment; sufficient accuracy can usually be had by listening. This is best done by playing a monaural record with the left channel speaker placed for stereo listening. Adjust one balance control so that the combined sound of the two speakers appears to come from a point midway between the two speakers.

If the external speaker system is other than 3.2 ohms impedance, the output voltages will not be equal for equal power output.

CRITICAL LEAD DRESS

1. Dress heater leads close to chassis.
2. Dress all leads away from phono input socket.
3. Keep leads of C4 and C7 as short as possible and dress all other components away from these capacitors.
4. Record changer motor leads must be twisted to minimize hum.

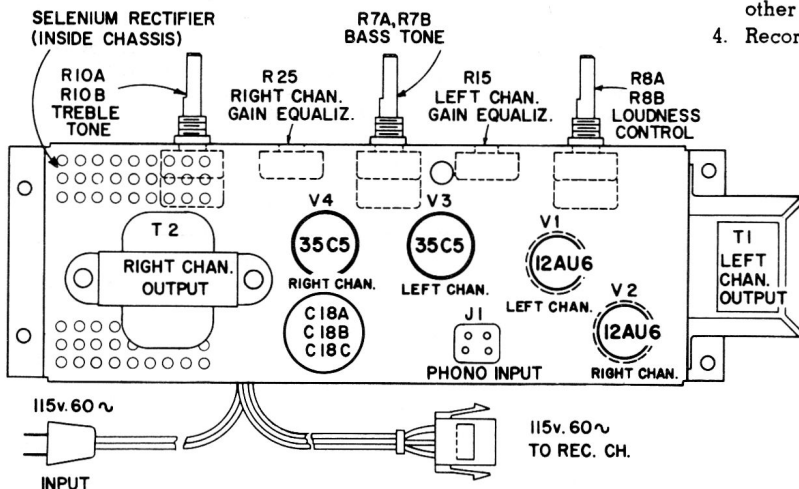
ACCESS TO TUBES AND CHASSIS

Model SHP-362

Turn cabinet on its side and remove ten wood screws holding the bottom cover to the cabinet.

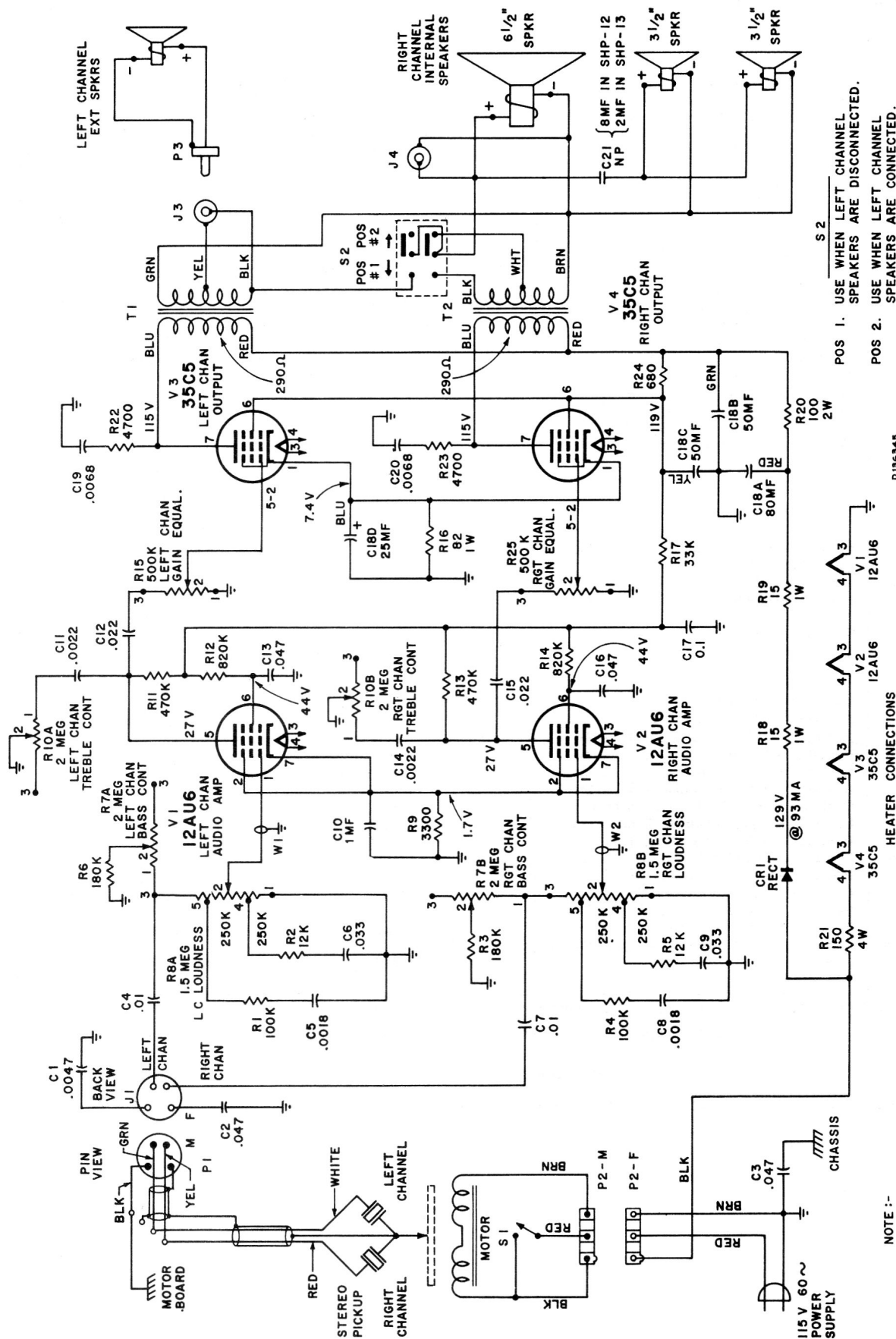
Model SHP-361

Remove inside front panel held by screws. Remove control knobs. Remove screws at edges of record changer mounting board; tilt board upward.



View of Amplifier Chassis Showing Location of Tubes and Major Components

FOR RECORD CHANGER
SERVICE INFORMATION—
REFER TO
COLLARO STEREO CONQUEST
ON PAGE 15 THIS VOLUME



Schematic Diagram

NOTE—The "ON-OFF" switch is not part of the volume control. The record changer must be "ON" for power to be applied to the amplifier.

The SPEAKER FUNCTION SWITCH (S2) must be in "POSITION 1" when internal speakers only are used (left-channel speakers not connected to J3).

For stereophonic record reproduction, an external speaker system must be connected to J3 and the speaker function switch must be in "POSITION 2."

POS 1. USE WHEN LEFT CHANNEL SPEAKERS ARE DISCONNECTED.
 POS 2. USE WHEN LEFT CHANNEL SPEAKERS ARE CONNECTED.

REPLACEMENT PARTS LIST

Insist on Genuine Factory Tested Parts, which are readily identified and may be purchased from Authorized Dealers.

SYMBOL	STOCK NO.	DESCRIPTION	SYMBOL	STOCK NO.	DESCRIPTION
C-1		Capacitor .0047 mfd. 20% 400 V	R-17		Resistor - 33,000 ohms, 10%, 1/2w
C-2		Capacitor .047 mfd. 20% 400 V	R-18		Resistor - 15 ohms, 10%, 1w
C-3		Capacitor .047 mfd. 20% 400V	R-19		Resistor - 15 ohms, 10%, 1w
C-4		Capacitor .01 mfd. 10% 200V	R-20		Resistor - 100 ohms, 10%, 2w
C-5		Capacitor .0018 mfd. 10%, 600V	R-21	* 106498	Resistor - Wirewound - 150 ohms, 10%, 4w
C-6		Capacitor .033 mfd. 10%, 200V	R-22		Resistor - 4700 ohms, 10%, 1/2w
C-7		Capacitor .01 mfd. 10%, 200V	R-23		Resistor - 4700 ohms, 10%, 1/2w
C-8		Capacitor .0018 mfd. 10%, 600V	R-24		Resistor - 680 ohms, 10%, 1/2w
C-9		Capacitor .0033 mfd. 10%, 200V	R-25	* 105210	Control - Rt. channel gain equalization control
C-10	* 106772	Electrolytic - 1 mfd. 50V			
C-11		Capacitor .0022 mfd. 10%, 600V	S-2	46760	Switch - Speaker Selector Switch
C-12		Capacitor .022 mfd. 20%, 400V			
C-13		Capacitor .47 mfd. 20% 400V	T 1&2	* 106504	Transformer - Audio Output Transformer
C-14		Capacitor .0022 mfd. 10% 600V			
C-15		Capacitor .22 mfd. 20%, 400V			SPEAKER ASSEMBLY
C-16		Capacitor .047 mfd. 20%, 400V			
C-17	S-22442	Capacitor .1 mfd. 20%, 400V	*S-22443		Speaker - 3-1/2" PM Speaker (2 req'd)
C-18	S-22442	Electrolytic - 80/50/50/25 mfd. 150/150/150/25V.	100464		Speaker - 6-1/2" PM Speaker
		Capacitor - .0068 mfd. 10%, 400V	100509		Capacitor - electrolytic - 8 mfd. 10V
C-19		Capacitor - .0068 mfd. 10%, 400V	* 100467		Housing - Plastic mounting base for 3-1/2" Speaker SHP361
C-20		Part of Speaker Assembly			MISCELLANEOUS ASSEMBLY
C-21					MODEL SHP-361
CR-1	100654	Rectifier - Selenium Rectifier			
J-1	38853	Connector 4 Contact female	*S-22645		Cabinet - Palimino Cabinet & Speaker
J-3	33514	Connector - Dual female Connector for external speaker	*S-22646		Cabinet - Extension Speaker Cabinet
J-4	33514	Connector - Dual female Connector for external speaker.	*S-22647		Escutcheon - Cabinet Air Vent
			*S-22648		Foot - Cabinet Foot
P-1	101737	Connector - 4 contact male	*S-22649		Handle - Carrying Handle & Supports
P-2F	106471	Connector 3 contact female	*S-22650		Hinge - Lid Hinge
P-2M	106344	Connector - 3 contact male	*S-22651		Latch - Latch for Lid Hinge
			*S-22617		Cloth - Grille Cloth
R-1		Resistor - 100,000 ohms, 10%, 1/2w	*S-22227		Support - Cabinet Lid Support
R-2		Resistor - 12,000 ohms, 10%, 1/2w	*S-22652		Plate - Trim Plate
R-3		Resistor - 180,000 ohms, 10%, 1/2w			ITEMS COMMON TO BOTH MODELS
R-4		Resistor - 100,000 ohms, 10%, 1/2w	*S-22653		Cable - A. C. Power Cord & Plug
R-5		Resistor - 12,000 ohms, 10%, 1/2w			
R-6		Resistor - 180,000 ohms, 10%, 1/2w	*S-22450		Escutcheon - Knob Escutcheon
R-7A/B	*S-22447	Control - Dual Bass Tone Control	*S-22387		Emblem - Dog Emblem
R-8A/B	*S-22445	Control - Dual Loudness Tone Control	104123		Knob Ass'y - Bass or Treble Tone Control Knob
R-9		Resistor - 3300 ohms, 10%, 1/2w	104122		Knob Ass'y - Volume Control Knob
R-10A/B	*S-22446	Control - Dual Treble Tone Control	S-22588		Motif - Stereo Orthophonic High Fidelity
R-11		Resistor - 470,000 ohms, 10%, 1/2w	101766		Retainer - "45" Spindle Retainer Clamp
R-12		Resistor - 820,000 ohms, 10%, 1/2w	73508		Spring - Knob Retaining Spring
R-13		Resistor - 470,000 ohms, 10%, 1/2w	73584		Shield - Tube Shield for V1, V2
R-14		Resistor - 830,000 ohms, 10%, 1/2w	101699		Socket - 7 pin miniature socket for V1, V2, V3 and V4
R-15	* 105210	Control - left channel gain equalization control	*S-22441		Manual - Customers Instruction Manual
R-16		Resistor - 82 ohms, 10%, 1w	S-22928		Legs - Set of 4 (SHP-362)

* Indicates New Stock Items. Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.

SPEAKER PHASING

For additional information on speaker phasing, refer to the Supplementary Information at the front of this volume.