

# COMPLETE SERVICE INFORMATION

*for*

**CHASSIS: 1-609-3,-4**  
**MODELS: 4301, 4303, 4305**

**HI-FI PHONO**  
**CHASSIS 1-609-3,-4**

Price 50c  
February 1957



Sylvania Electric Products Inc., Radio & Television Div., Service Dept., Batavia, N. Y.

## SPECIFICATIONS

POWER SUPPLY...105-125 Volts 60 Cycle AC  
POWER CONSUMPTION  
(4301 & 4305 Series).....85 Watts  
(4303 Series).....95 Watts  
FREQUENCY RESPONSE..40 to 20,000 C.P.S.  
AUDIO POWER OUTPUT.....10 Watts  
SPEAKERS  
(4303 & 4301 Series)  
One 12" PM & Two 4" PM  
(4305 Series)..One 12" PM & One 4" PM



MODEL 4305



MODEL 4303

(Model 4301 is similar to Model 4303)

## TUBE COMPLEMENT

V1 (A) AF Amplifier.....( $\frac{1}{2}$ ) 12AX7  
V1 (B) Inverter.....( $\frac{1}{2}$ ) 12AX7  
V2 Audio Output Amplifier.....6V6GT  
V3 Audio Output Amplifier.....6V6GT  
V4 Rectifier.....5Y3GT

## RECORD CAPACITY - AUTOMATIC CHANGE

Standard 78 RPM records: Ten 12", twelve 10" or any assortment of ten 12" and 10" records intermixed.

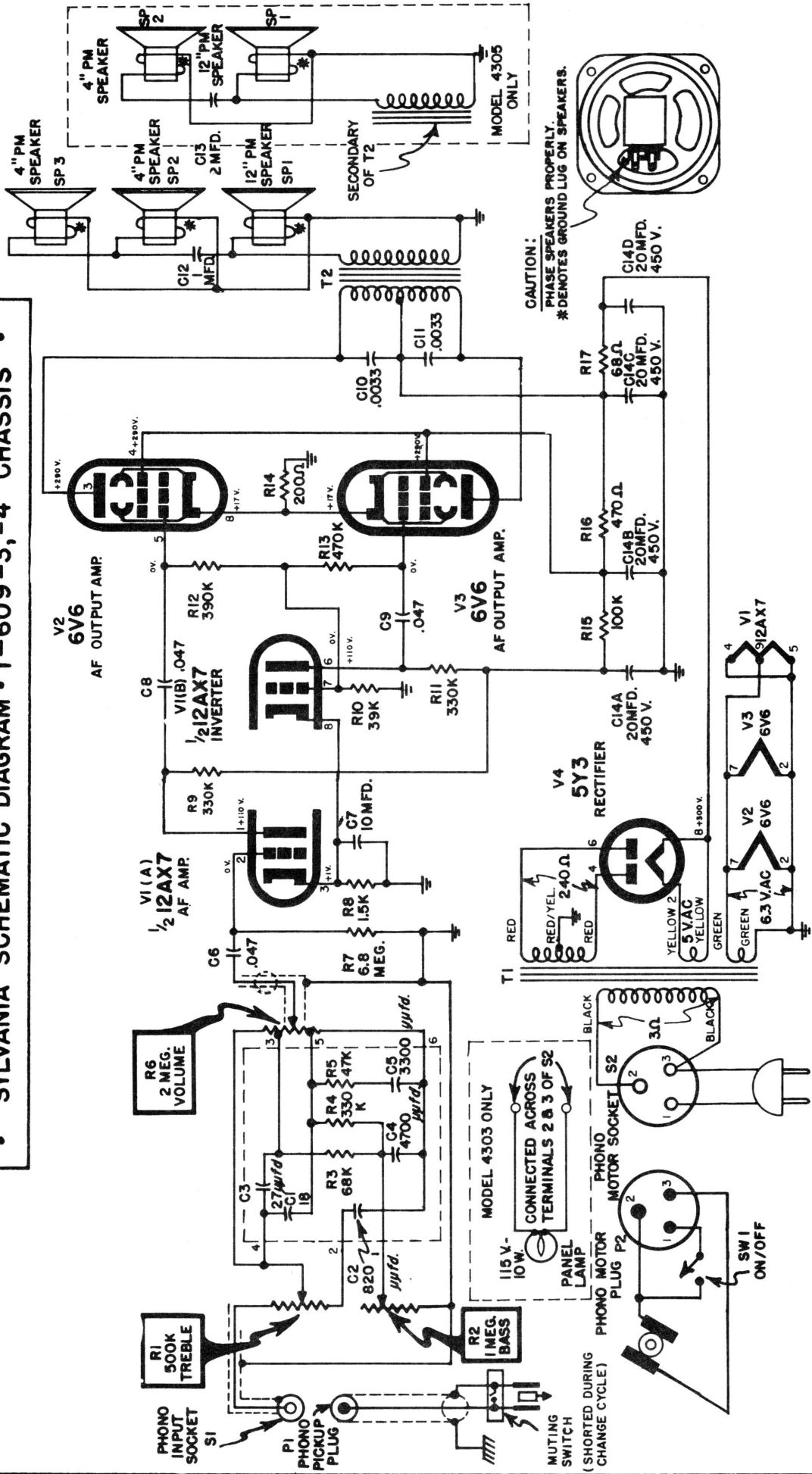
Long Play 33  $\frac{1}{3}$  RPM records: Ten 12", twelve 7", Twelve 10" or any assortment of ten 12" and 10" records intermixed.

Fine Groove 45 RPM records: Twelve 7" records using adaptors inserted in records. (Extra adaptor discs are available from a Sylvania dealer).

16 RPM records: Certain 16 RPM records may be played automatically, others must be played manually.

NOTE: For service information for record changer, refer to Bulletin 1-317-1.

• SYLVANIA SCHEMATIC DIAGRAM • 1-609-3,-4 CHASSIS •



- SCHEMATIC NOTES**
1. VOLTAGES MEASURED TO CHASSIS USING SYLVANIA POLYMER.
  2. AC POWER SOURCE 117V. 60 "VARIAC" REGULATED.
  3. VOLUME, TREBLE, AND BASS CONTROLS SET MAXIMUM CCW.
  4. PHONO AND PHONO MOTOR PLUGS CONNECTED.
  5. VOLTAGE VALUES SHOWN ARE AVERAGE READINGS. VARIATIONS MAY BE OBSERVED DUE TO NORMAL PRODUCTION TOLERANCES.
  6. AVERAGE RESISTANCES OF TRANSFORMERS ARE INDICATED AND TAKEN WITH COMPONENT CONNECTED IN CIRCUIT.

REPLACEMENT PARTS LIST

<u>SCHEMATIC LOCATION</u>	<u>SERVICE PART NO.</u>	<u>DESCRIPTION</u>	<u>SCHEMATIC LOCATION</u>	<u>SERVICE PART NO.</u>	<u>DESCRIPTION</u>
			<b>MISCELLANEOUS ELECTRICAL PARTS</b>		
R1,R2	181-0685	Listed under "Controls"	PC1	195-0003	Cord - AC Power Line
R3,R4,R5	181-0152	See "Misc. Electrical Parts" - PCI	R3,R4	190-0030	Plate - Audio
R6	181-0334	Listed under "Controls"	R5		68,000 Ohms, 330,000 Ohms, 47,000 Ohms
R7	181-0393	6.8 Megohm - 20% - 1/2W.	C1,C2,C3		18 Mmfd., 820 Mmfd., 27 Mmfd.
R8	181-0334	1,500 Ohm - 10% - 1/2W.	C4,C5		4,700 Mmfd., 3,300 Mmfd.
R9	181-0393	330,000 Ohm - 10% - 1/2W.	L1	611-0007	Lamp - 120V. - 10W. (Model 4303 Only)
R10	181-0334	39,000 Ohm - 10% - 1/2W.			
R11	181-0334	330,000 Ohm - 10% - 1/2W.			
R12	181-0394	390,000 Ohm - 10% - 1/2W.			
R13	181-0474	470,000 Ohm - 20% - 1/2W.			
R14	187-0031	200 Ohm - 10% - 5W. W.W.			
R15	181-0104	100,000 Ohm - 20% - 1/2W.			
R16	182-0471	470 Ohm - 20% - 1W.			
R17	182-0680	68 Ohm - 20% - 1W.			
					<b>CHASSIS PARTS</b>
R1	153-0118	500,000 Ohm (Treble)	497-0005		Bushing & Retainer (Line Cord)
R2	153-0117	1 Megohm (Bass)	415-0004		Plug - 1 Prong - Phono Input
R6	153-0116	2 Megohm (Volume)	415-0031		Plug - 3 prong - Phono Motor
			412-0006		Socket - 8 Prong - Octal Tube
			412-0012		Socket - 9 Prong - Min. Tube
			412-0026		Socket - Lamp (Model 4303 Only)
			419-0004		Socket - 3 Prong-Phono Motor
			419-0021		Socket - 1 Prong - Phono Input
					<b>CABINET PARTS</b>
					(Models 4301 and 4303)
C1,C2		See "Misc. Electrical Parts" - PCI	818-0106		Bezel - Nameplate
C3,C4,C5		See "Misc. Electrical Parts" - PCI	740-0143		Knob - Treble, Bass, Volume
C6	160-06147	.047 Mfd. - 400V. - Paper	74-87571-1		Level - Spirit (Model 4303 only)
C7	161-1000	10 Mfd. - 25V. - Electrolytic	818-0105		Name & Bezel Plates Assembled
C8	160-06147	.047 Mfd. - 600V. - Paper	818-0094		Nameplate - Sylvaria
C9	160-06147	.047 Mfd. - 600V. - Paper	818-0056		Nameplate - High Fidelity
C10	160-06233	.0033 Mfd. - 600V. - Paper	539-0407		Speaker - 4" PM
C11	160-06233	.0033 Mfd. - 600V. - Paper	539-1207		Speaker - 12" PM
C12	169-0059	1 Mfd. - 50V. - Paper			(Model 4305)
C13	169-0031	2 Mfd. - 50V. - Paper (Model 4305)			
C14	161-4021	Four Section Electrolytic			
"A" Section		20 Mfd. - 450V.	740-0155		Knob - Treble, Bass, Volume
"B" Section		20 Mfd. - 450V.	818-0056		Nameplate - High Fidelity
"C" Section		20 Mfd. - 450V.	818-0003		Ornament
"D" Section		20 Mfd. - 450V.	539-0423		Speaker - 4" PM
			539-1208		Speaker - 12" PM
					<b>TRANSFORMERS</b>
T1	141-0068	Power			
T2	143-0048	Audio			

## AMPLIFIER UNIT REMOVAL

1. Disconnect power cord from AC outlet.
2. Remove three (3) control knobs.
3. On models 4301 and 4303 only, remove backcover.
4. Disconnect phono motor plug.
5. Unsolder leads connecting amplifier unit to 12" PM speaker.
6. On model 4303 only, remove two (2) screws holding pilot lamp socket to cabinet.
7. Remove phono pickup plug from control plate.
8. Remove two (2) screws holding control plate to cabinet.
9. Remove three (3) screws securing amplifier unit to cabinet. Remove amplifier unit and control plate.

## CHANGER REMOVAL

1. Disconnect power cord from AC outlet.
2. Clip tone arm securely on rest.
3. Disconnect phono pickup plug from control plate.
4. Remove phono motor plug from amplifier unit.
5. Remove two (2) "C" washers at base of hold-down screws and lift out changer.

## CHANGER ADJUSTMENTS

### Needle Set-Down

The set-down position of the needle is adjusted by means of the set-down adjustment screw "A" mounted on the hinge arm assembly. Turn this screw adjusting pick-up arm for correct set-down on a 10" record. When the correct set-down is obtained for the 10" position, the 12" and the 7" needle set-down will also be correct.

### Pick-up Arm Height

The pick-up arm height is adjusted by the lift screw "B". To raise the height of the pick-up arm, turn this screw counter-clockwise. To lower the pick-up arm, turn clockwise. The pick-up arm height should be adjusted so that with a 1 1/8" stack of records on the turntable the pick-up arm lifts 1/4" straight up as the change cycle starts.

### Needle Pressure

The needle pressure should be between 8 and 10 grams. Adjustment is made by placing weight adjusting spring "C" in the slots, on the underside of the pick-up arm, to give the desired pressure.

