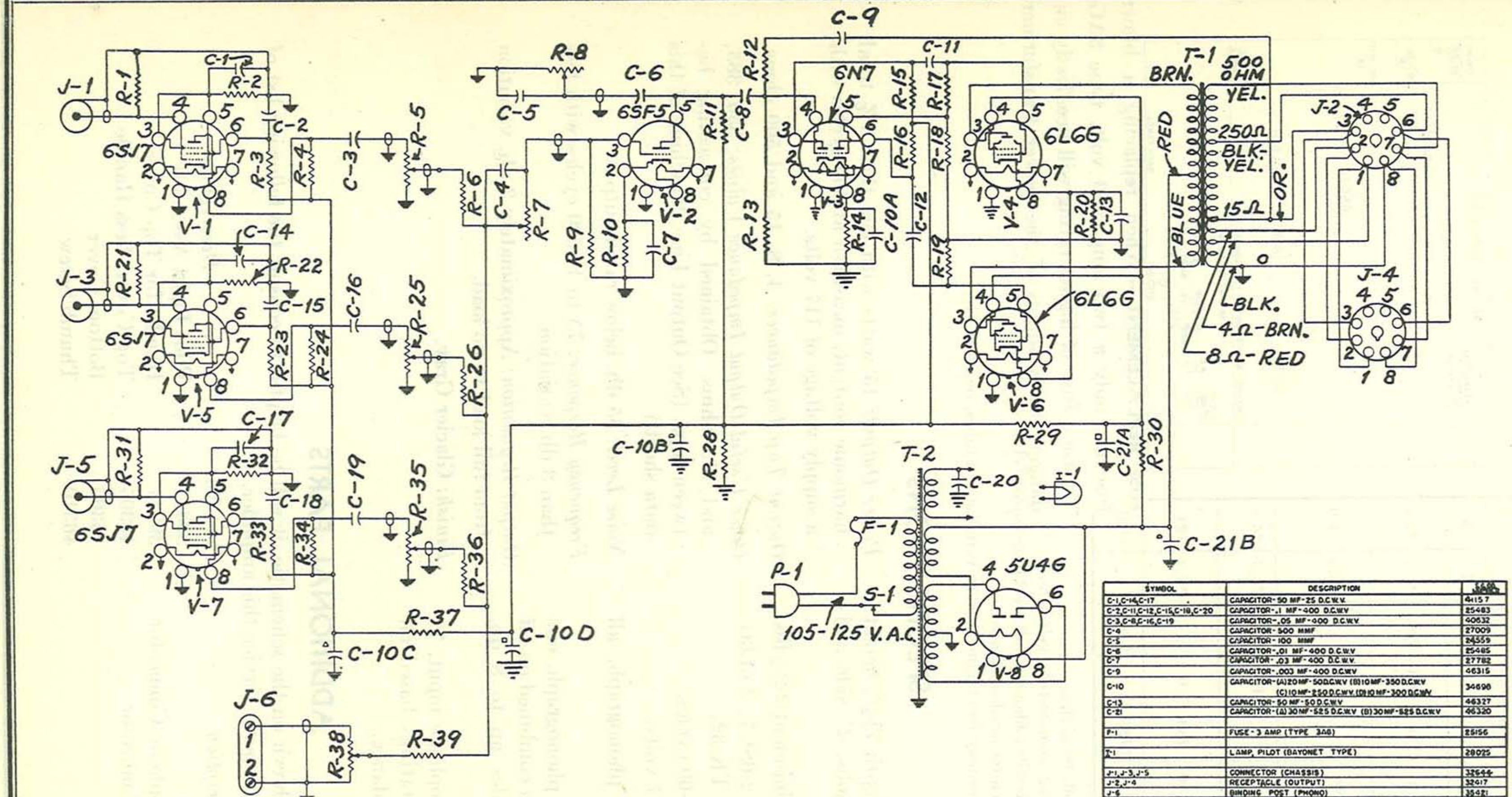
MODELS AU-33,
PS-33

STROMBERG-CARLSON CO.



SYMBOL	DESCRIPTION	STOCK NUMBER
C-1, C-14, C-17	CAPACITOR-50 MF-25 D.C.W.V.	41157
C-2, C-11, C-12, C-15, C-18, C-20	CAPACITOR-.1 MF-400 D.C.W.V.	25483
C-3, C-8, C-16, C-19	CAPACITOR-.05 MF-400 D.C.W.V.	40632
C-4	CAPACITOR-500 MMF	27009
C-5	CAPACITOR-100 MMF	24559
C-6	CAPACITOR-.01 MF-400 D.C.W.V.	25485
C-7	CAPACITOR-.03 MF-400 D.C.W.V.	27782
C-9	CAPACITOR-.003 MF-400 D.C.W.V.	46315
C-10	CAPACITOR-(A)20 MF-50 D.C.W.V. (B)10 MF-350 D.C.W.V. (C)10 MF-250 D.C.W.V. (D)10 MF-300 D.C.W.V.	34698
C-13	CAPACITOR-50 MF-50 D.C.W.V.	46327
C-21	CAPACITOR-(A)30 MF-525 D.C.W.V. (B)30 MF-525 D.C.W.V.	46320
F-1	FUSE-3 AMP (TYPE 3AG)	25156
I-1	LAMP, PILOT (BAYONET TYPE)	28025
J-1, J-3, J-5	CONNECTOR (CHASSIS)	32644
J-2, J-4	RECEPTACLE (OUTPUT)	32417
J-6	BINDING POST (PHONO)	35421
P-1	A.C. CORD & PLUG	46302
R-1, R-6, R-21, R-26, R-31, R-36, R-39	RESISTOR-1 MEG 10%, 1/2 WATT	28191
R-2, R-22, R-32, R-14	RESISTOR-1500 OHM 10%, 1/2 WATT	28160
R-3, R-23, R-33	RESISTOR-1.5 MEG 10%, 1/2 WATT	28193
R-4, R-24, R-34	RESISTOR-.15 MEG 10%, 1/2 WATT	27640
R-5, R-25, R-35, R-38	POTENTIOMETER-1 MEG (VOLUME)	46313
R-7	POTENTIOMETER-5 MEG (BASS)	46314
R-8	POTENTIOMETER-1 MEG (TREBLE)	39838
R-9, R-13	RESISTOR-.68 MEG 10%, 1/2 WATT	28189
R-10	RESISTOR-1200 OHM 10%, 1/2 WATT	28159
R-11, R-15, R-16, R-17, R-19	RESISTOR-.1 MEG 10%, 1/2 WATT	28006
R-12	RESISTOR-.47 MEG 10%, 1/2 WATT	28187
R-18	RESISTOR-4700 OHM 10%, 1/2 WATT	28166
R-20	RESISTOR-250 OHM 5%, 10 WATT	46358
R-37	RESISTOR-22,000 OHM 10%, 1/2 WATT	27407
R-28	RESISTOR-15,000 OHM 5%, 10 WATT	46363
R-29	RESISTOR-5,000 OHM 5%, 10 WATT	46361
R-30	RESISTOR-2,500 OHM 5%, 10 WATT	46359
S-1	SWITCH (ON TREBLE CONTROL)	
T-1	TRANSFORMER (OUTPUT)	46326
T-2	TRANSFORMER (POWER)	33026
V-1, V-5, V-7	VACUUM TUBE-6SJ7	35754
V-2	VACUUM TUBE-6SF5	41486
V-3	VACUUM TUBE-6N7	41131
V-4, V-6	VACUUM TUBE-6L6G	35756
V-8	VACUUM TUBE-5U4G	35758

SERVICE

AMPLIFIER GROUND—A good building ground, such as a connection from a cold water pipe or the frame of a steel building, should be terminated under the knurled nut located on the rear of the amplifier.

FUSE REPLACEMENT—When replacing a blown fuse use only a three amp. 250 volt, type 3AG. To use a fuse of higher rating will needlessly endanger the windings of the power transformer.

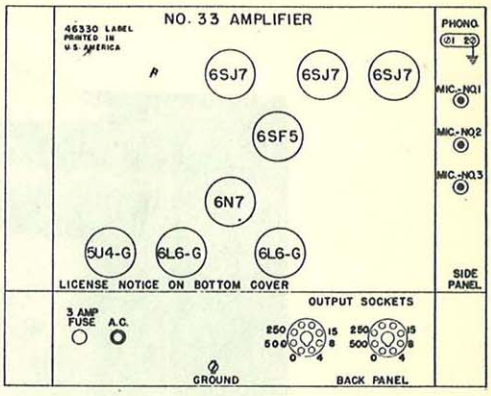
STROMBERG-CARLSON CO. MODELS AU-33, PS-33

VOLTAGE CHART

Tube			Terminal							
No.	Type	Purpose	1	2	3	4	5	6	7	8
3	6SJ7	First Stage Voltage Amplifier*	0	*6.3	0.8	0	0.8	22	*6.3	130
1	6SF5	Second Stage Voltage Amplifier	0	1.1	0	..	160	..	*6.3	*6.3
1	6N7	Driver-Inverter	0	*6.3	140	0	0	140	*6.3	3.1
2	6L6G	Push Pull Power Amplifier	0	*6.3	410	350	0	..	*6.3	27
1	5U4G	Full Wave Rectifier	..	415	..	†375	..	†375	..	415

No signal input. Power supply 117 volts 60 cycles.
D.C. voltages measured to chassis using vacuum tube voltmeter.
†A.C. voltages measured to chassis. Rectifier filament voltage 5.0 measured between terminals 4 and 6.
*A.C. heater voltage measured between terminals 2 and 7.
Variations of ±10% from above values may be obtained due to manufacturing tolerance in tubes, resistors, etc.

TUBE LOCATION CHART



*SPECIFICATIONS

Size with Cover: Width 13½", depth 9", height 10½". Allow 1" front for knobs, 2" side and back for connectors.

Weight: Net 25 lbs., packed for shipment 28¾ lbs.

Tubes Required: 3-6SJ7, 1-6SF5, 1-6N7, 2-6L6G, 1-5U4G. Order Tube Kit, TK-33.

Power Supply: 105-125 volts, 50-60 cycles.

Power Consumed: 130 watts at 117 volts.

Inputs: Three microphone, one phonograph, all high impedance.

Controls: Three microphone, one phonograph, one bass attenuation, one treble attenuation control with combined on-off switch. Treble control provides up to 16 db. attenuation at 10,000 c.p.s. Bass control provides up to 13 db. attenuation at 50 c.p.s.

Power Gain: 106 db. from microphone inputs, 68 db. from phonograph input, ratings based on 50,000 ohms input source impedance.

Power Output: 25 watts with less than 5% total harmonic content, measured at 400 cycles with a supply voltage of 117 volts.

Output Tap Impedances: 4, 8, 15, 250 and 500 ohms.

Other Useful Output Impedance Values: 170, 190, 350, 385, and 415 ohms. Obtained by connecting between taps. (See Output Line Matching of this data sheet.)

Noise Level: 55 db. below rated output.

Frequency Response: 75 to 10,000 cycles with less than 3 db. variation.

Output Regulation: Approximately 3 db. variation from full load to no load.

Finish: Glacier Gray.

Underwriters Approved: Listed under re-examination service by Underwriters' Laboratories, Inc.

*Specification ratings based on actual production models.

ADDITIONAL PARTS

In addition to the components shown on the schematic, it will be helpful to consult the following list of parts that might be required to properly service this amplifier.

Part No.	*Description*	*Part No.*	*Description*
46702	Fuse Holder	39844	Pilot Lamp Assembly
32643	External Microphone Connector	39847	Top Cover Handle
32657	Speaker Line Connector	46310	Thumb Screw
32667	Knob, Large	46321	Top Cover Less Handle
39840	Knob, Small	46324	Bottom Cover

MODELS AU-33, PS-33

STROMBERG-CARLSON CO.

OUTPUT LINE MATCHING—The following chart lists the amplifier output taps provided to accommodate various reproducer loads. The audio voltage present when the amplifier is delivering rated output, are also listed:

Terminal	*Impedance*	*Output (at 25 watts)*
8-1	4 ohms	10 volts
8-2	8 ohms	14 volts
8-3	16 ohms	20 volts
6-2	170 ohms	65 volts
6-1	190 ohms	69 volts
8-6	250 ohms	79 volts
7-3	350 ohms	94 volts
7-2	385 ohms	98 volts
7-1	415 ohms	101 volts
8-7	500 ohms	112 volts

For maximum power and minimum distortion it is desirable to obtain the proper match between each amplifier and its output load. To determine the load impedance of several reproducers connected in parallel, divide the impedance of one reproducer by the number of reproducers of the same impedance on the line. If the exact impedance is not available at the amplifier use the next lower tap (never a higher tap).

Example: Four reproducers whose line matching transformers are connected in parallel to the 1250 ohm tap (1250 ohm divided by four) results in a load impedance of 312 ohms. Terminate this load on the next lower amplifier output tap which is 250 ohms.