





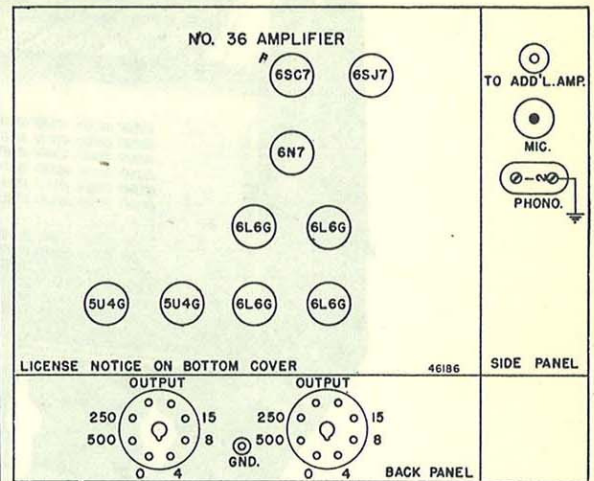
## STROMBERG-CARLSON CO.

MODEL AU-36

## VOLTAGE CHART

Tube			Terminal							
No.	Type	Purpose	1	2	3	4	5	6	7	8
1	6SJ7	Microphone Amplifier	0	*6.3	0.9	0	0.9	33	*6.3	110
1	6SC7	Amplifier, Mixer, Phase Inverter	0	125	0	0	125	1.1	*6.3	*6.3
1	6N7	Push-Pull Driver	0	*6.3	155	0	0	155	*6.3	3.6
4	6L6G	Push-Pull Parallel Power Amplifier	0	*6.3	380	300	-26.5	-26.5	*6.3	0
2	5U4G	Full-Wave Rectifier	..	385	..	†375	..	†375	..	385

## TUBE LOCATION CHART



No signal input. Power supply 117 volt, 60 cycle.

D.C. voltages measured to chassis using vacuum-tube voltmeter.

†A.C. voltages measured to chassis. Rectifier filament voltage 5.0 measured between terminals 2 and 8.

\*A.C. heater voltages measured between terminals indicated.

Variations of  $\pm 10\%$  from above values may be obtained due to variations in tubes, resistors, etc.

## SPECIFICATIONS

**Size with Cover:** Width—16", depth—12", height—11". Allow 1" front for knobs, 2" side and back for connectors.

**Weight:** Net 35 lbs.—packed for shipment, 44 lbs.

**Tubes Required:** 1-6SJ7, 1-6SC7, 1-6N7, 4-6L6G, 2-5U4G. Order Tube Kit, TK-36.

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

**Power Consumed:** 245 watts at 117 volts.

**Inputs:** One microphone, one phonograph, both high impedance.

**Controls:** One microphone, one phonograph, one bass attenuator, one treble attenuator, one on-off switch. Bass control provides up to 15 db. attenuation at 50 c.p.s. Treble control provides up to 10 db. attenuation at 12,000 c.p.s.

**Power Gain:** 117 db. from microphone input, 78 db.

from phonograph input, ratings based on 50,000 ohm input source impedance.

**Power Output:** 50 watts with less than 5% total harmonic content, measured at 400 c.p.s. 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:** 50 db. below rated output.

**Frequency Response:** 50 to 12,000 c.p.s. with less than 3 db. variation.

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

**Finish:** Glacier Gray.

## ADDITIONAL PARTS

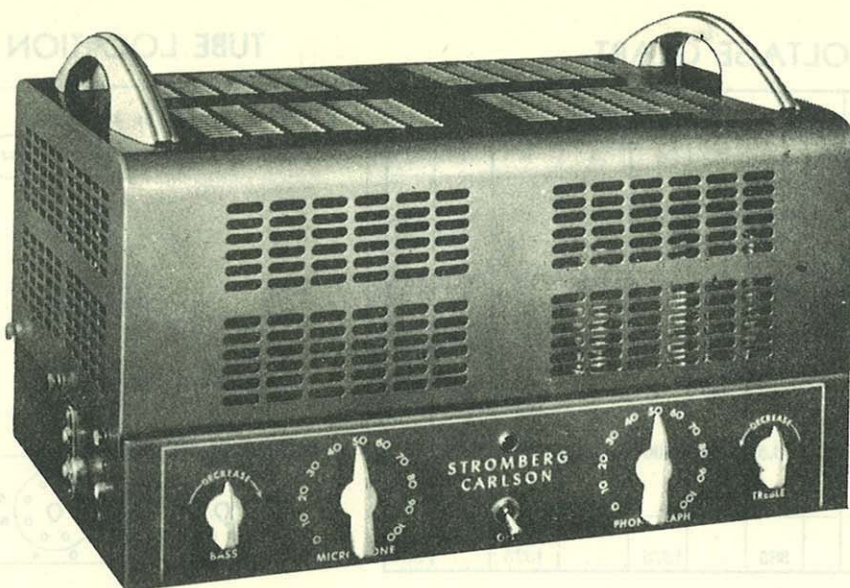
In addition to the components shown on the schematic, it will be helpful to consult the following list of parts that might be required to properly service this amplifier.

Part No.	Description	Part No.	Description
46702	Fuse holder	39840	Knob (small)
30224	Added amplifier plug	39844	Pilot lamp assembly
32643	External microphone connector	46472	Bottom cover
32657	Reproducer line connector	46490	Top cover
32667	Knob (large)	TK-36	Tube kit



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**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.

**REPRODUCER LINES**—When reproducers are to be located at a distance from the amplifier care must be taken to see that line loss is not excessive. Line loss can be reduced by increasing the size of the wire or by using transformers at each reproducer location to raise the impedance of the line. Additional information is given in Sales Engineers' Manual, Section 24, which may be obtained from your Stromberg-Carlson distributor.

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

Terminal	Impedance	Output (at 50 watts)
8-1	4 ohms	14 volts
8-2	8 ohms	20 volts
8-3	15 ohms	27 volts
6-2	170 ohms	92 volts
6-1	190 ohms	98 volts
8-6	250 ohms	112 volts
7-3	350 ohms	132 volts
7-2	385 ohms	139 volts
7-1	415 ohms	144 volts
8-7	500 ohms	158 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. (See SED 24.11 when more detailed information is desired on impedance matching.)

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

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 grounding nut of either one but not both of the amplifiers.