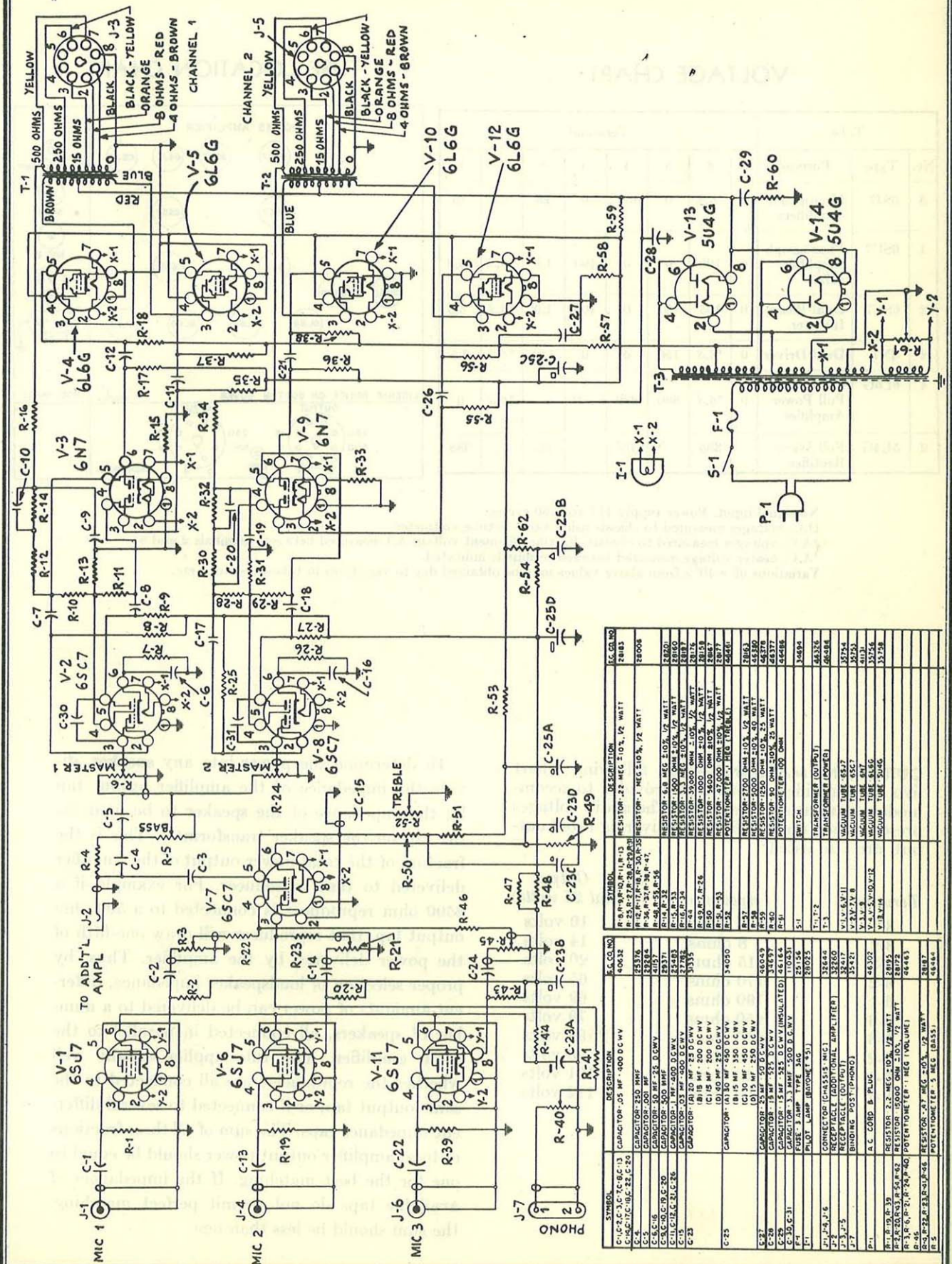


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MODEL AU-35



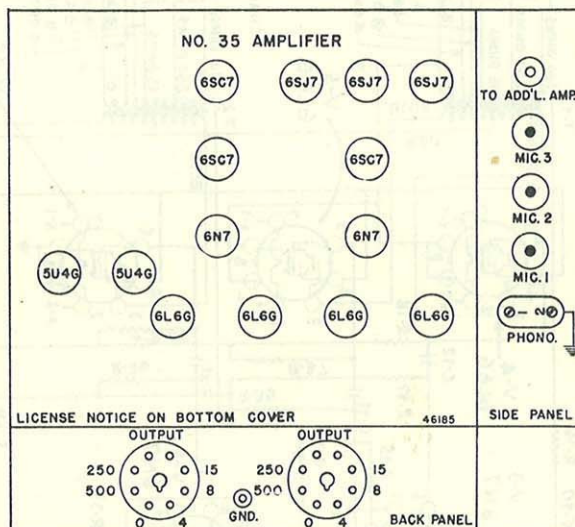
MODEL AU-35

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VOLTAGE CHART

Tube			Terminal							
No.	Type	Purpose	1	2	3	4	5	6	7	8
3	6SJ7	Microphone Amplifiers	0	*6.3	0	0.9	0	28	*6.3	46
1	6SC7	Phonograph Amplifier, Mixer	0	190	0	0	190	1.8	*6.3	*6.3
2	6SC7	Dual Phase-Inverter	0	105	0	0	105	1.0	*6.3	*6.3
2	6N7	Dual Driver	0	*6.3	150	0	0	150	*6.3	3.5
4	6L6G	Dual Push-Pull Power Amplifier	0	*6.3	380	290	—25	..	*6.3	0
2	5U4G	Full Wave Rectifier	..	385	..	†375	..	†375	..	385

TUBE LOCATION CHART



No signal input. Power supply 117 volt, 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 2 and 8.

*A.C. heater voltage measured between terminals indicated.

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

OUTPUT LINE MATCHING—The following chart lists the amplifier output taps provided to accommodate various speaker loads. The audio voltages 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	15 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

To determine the power into any speaker, divide the impedance of the amplifier output tap by the impedance of the speaker to be used (or the tap on the speaker transformer). This is the fraction of the total power output of the amplifier delivered to that reproducer. For example, if a 2500 ohm reproducer is connected to a 500 ohm output tap, that reproducer will draw one-fifth of the power delivered by the amplifier. Thus, by proper selection of loudspeaker impedance, different amounts of power can be delivered to a number of speakers, all connected in parallel to the same amplifier. The rule applies equally well whether the reproducers are all connected to the same output tap, or if connected to several different-impedance taps. The sum of all these fractions of total amplifier output power should be equal to one for the best matching. If the impedances of available taps do not permit perfect matching, the sum should be less than one.

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SPECIFICATIONS

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

Weight: Net 41 lbs., packed for shipment 50 lbs.

Tubes Supplied: 3-6SJ7, 3-6SC7, 2-6N7, 4-6L6G, 2-5U4G.

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

Power Consumed: 250 watts at 117 volts.

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

Controls: Three microphone, one phonograph, one treble attenuator, one bass attenuator, two master volume controls, one on-off switch. Bass control provides up to 9 db. attenuation at 50 cps. Treble control provides up to 16 db. attenuation at 12,000 cps.

Power Gain: 118 db. from microphone inputs, 90 db. from phonograph input, ratings based on 50,000 ohm input source impedance.

Power Output: 50 watts, 25 watts each output channel with less than 5% total harmonic content, measured at 100, 400 and 5000 cps. 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 cycles. Variation less than +0 db. -3 db. from the 400 cps. value.

Output Regulation: Less than 5 db. variation from full load to no load.

Finish: Glacier Gray over copper plate.

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

REPLACEMENT 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
27958	Fuse holder	39840	Knob (small)
30224	Added amplifier plug	39844	Pilot lamp assembly
32643	External microphone connector	39847	Top cover handle
32657	Output line connector	46310	Thumb screw
32667	Knob (large)	46472	Bottom cover

