



MODEL AM-43

STROMBERG-CARLSON CO.

OUTPUT CONNECTIONS—Two parallel-connected octal sockets on the rear of the amplifier base provide connection to the various taps of the output transformers.

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

<i>Terminal</i>	<i>Impedance</i>	<i>Output (at 25 watts)</i>
8-1	4 ohms	10 volts
8-2	8 ohms	14 volts
8-3	15 ohms	20 volts
8-6	250 ohms	79 volts
7-2	385 ohms	98 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 line-to-speaker transformer). This is the fraction of the total power output of the amplifier delivered to that speaker. For example: if a 2,500-ohm speaker is connected to the 500-ohm amplifier output tap, that speaker 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 speakers are all connected to the same output tap, or if connected to several differ-

SERVICE

FUSE REPLACEMENT—This amplifier is equipped with separate fuses for A.C. and for storage battery operation. For continued protection, use only the specified size fuses. To use a fuse of higher rating will needlessly endanger components of the amplifier. The A.C. fuse is a 3-amp type 3AG, and the battery fuse is a 30-amp type 4AG.

MAINTENANCE—The values and part numbers of the various components are given in the list of parts on the schematic diagram. The voltages present at the various socket terminals of a normal operating amplifier are given in the voltage chart. These operating voltages are based on a power source of 117 volts 60 cps A.C. or 6 volts D.C. and are subject to the usual tolerances.

With the exception of the power-supply cable, standby switch and vibrator, all component parts are common for both A.C. and battery operation. In order to operate the amplifier, it is necessary to use the correct power-supply cable with its properly-wired plug assembly in order to complete the amplifier wiring. The entire wiring change-over from one power supply to the other is automatically accomplished by plugging in the proper power-supply cable at the rear of the amplifier. This causes the amplifier to function in the following manner:

A.C. OPERATION—Using a 105-125-volt A.C. power source, this amplifier operates much the same as any A.C.-operated audio amplifier. A 117-volt winding on the transformer is used as the primary; the 1006/CK-1006 gaseous rectifier tube is supplied heater current from a 1.75-volt secondary winding; the heaters of all other tubes are supplied from a separate 6.3-volt secondary winding on the transformer.

BATTERY OPERATION—Operation of the amplifier and turntable from a 6-volt storage battery is made possible by the use of a 60-cycle "tandem" vibrator to convert the D.C. to A.C. This is applied to the power transformer through separate 6-volt primary windings. The 117-volt transformer winding is now used as a secondary from which the phonograph motor may be operated. The 1006/CK1006 rectifier tube continues to be operated from the 1.75-volt transformer winding while the heaters of all other tubes have been switched to operate directly from the battery by insertion of the proper power-supply plug.



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SPECIFICATIONS

Size with Cover: Width 14½", depth 12", height 9".

Allow 1" on front for knobs, 2" on side for input connectors; 3" on back for power connector and 3" on top for record turntable and pickup.

Weight: Net 35 lbs. Packed for shipment—45 lbs.

Tubes Supplied: 1-6SJ7, 2-6SC7, 1-6N7, 2-6L6G, 1-1006.

Power Supply Required: 105-125 volts, 60 cps, or 6 volts D.C.

Power Cables Supplied: 2-six-foot cables with rugged, heavy-duty connectors.

Power Consumed: With turntable operating—140 watts at 117 volts A.C., or at 6 volts D.C. In standby position—3.5 amps at 6 volts D.C.

Top Cover: Motor: Self-starting induction-type. 78 rpm. Turntable: 9 inch. Pickup: Mobile model with hinged head.

Inputs: Two high-impedance microphones, one high-impedance phonograph.

Controls: Microphone 1, Microphone 2, Phonograph, Treble, Bass, On-Off Switch, Standby Switch, Phono Motor Switch.

Frequency Response: Microphone Inputs: Response

from 50 to 10,000 cps. Varies less than +0, -3 db from the 400 cps value with tone controls set for minimum attenuation. Phonograph Input: Response compensated for the phono pickup supplied. Provides 7 db bass boost at 90 cps.

Tone Controls: Treble Control: Provides up to 20 db attenuation at 10,000 cps. Bass Control: Provides up to 20 db attenuation at 90 cps.

Power Gain: 114 db from microphone inputs at 400 cps based on 50,000 ohm input source impedance. This is equivalent to an input sensitivity of 4 millivolts for rated output.

Power Output: 25 watts with less than 5% total harmonic content measured at 400 cps with a supply voltage of 117 volts, 60 cps, or 6 volts D.C.

Noise Level: Combined noise and hum level is at least 50 db below rated output.

Output Impedance Taps: 4, 8, 15, 250 and 500 ohms.

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

Finish: Glacier Grey over copper plate.

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
109601	Cable assembly. For use with 117 volt A.C. power source.	27958	Fuse holder. For 3AG fuse.
109602	Cable assembly. For use with 6 volt storage battery.	128602	Fuse holder. For 4AG fuse.
119605	Top cover complete.	35038	Knob.
119607	Top cover less motor, pickup arm, etc.	30947	Pilot lamp socket.
119609	Bottom cover.	30933	Pilot lamp jewel.
148602	Mobile pickup. Complete with cart-ridge, arm-rest.	32643	Microphone cable connector.
		32657	Speaker line connector.
		46310	Thumb screws.

VOLTAGE CHART

Tube			Terminal							
No.	Type	Purpose	1	2	3	4	5	6	7	8
1	6SC7	Microphone Inputs	0	150	-.75	-.75	150	0	*	*
1	6SC7	Phono-Input Mixer	0	180	0	0	150	1.5	*	*
1	6SJ7	Voltage Amplifier	0	*	1.5	0	1.5	40	*	180
1	6N7	Phase Inverter	0	*	145	0	0	145	*	3.3
2	6L6G	Push-Pull Power Output	0	*	400	325	0	..	*	25
1	1006	Rectifier	†405	‡395	‡395	†405

No signal input. Power source 117 volts 60 cps or 6 volts D.C.

*Heater voltages measured between marked terminals on same socket. With 117 volt A.C. power source, heater voltage is 6.3 A.C. With 6 volt D.C. power source, heater voltage 5.8 D.C.

†Rectifier heater voltage 1.75 A.C. measured between terminals 1 and 4.

‡A.C. voltages measured to chassis.

Unless otherwise indicated all values are D.C. voltage measured to chassis using a vacuum tube voltmeter.

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