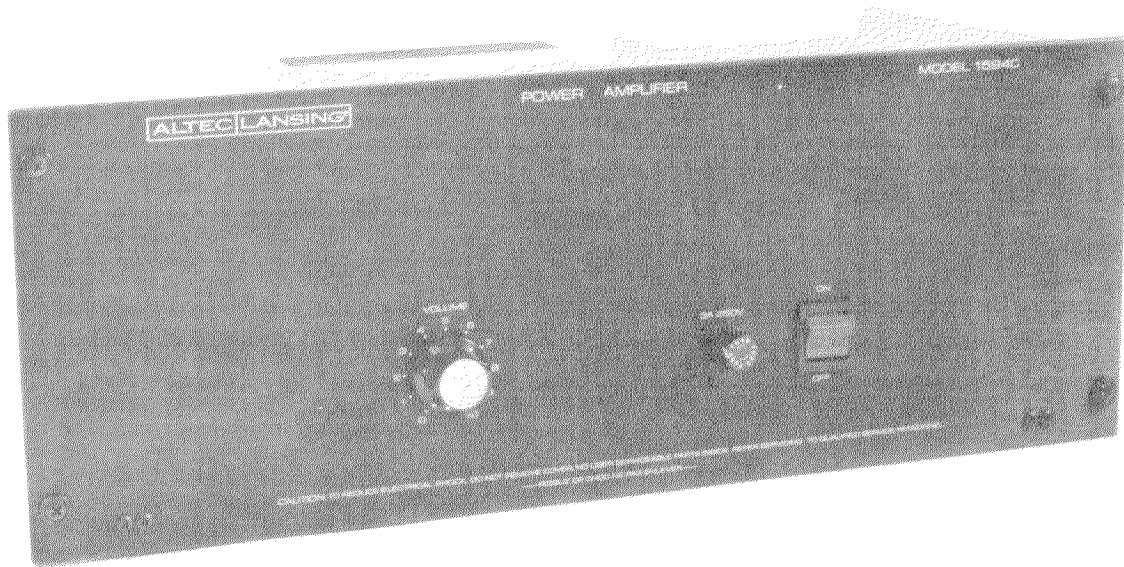




# 1594C POWER AMPLIFIER



## DESCRIPTION

The 1594C Power Amplifier delivers in excess of 100 watts of power at less than 1% total harmonic distortion (THD) from 35-20,000 Hz. It has a high-impedance direct input and an octal socket to accept a line-matching or line-bridging transformer. A selectable high-pass filter having a cutoff frequency of 300 Hz is available to provide driver protection in speech reinforcement systems.

The 1594C provides transformer-isolated

outputs for 4-ohm, 8-ohm and 16-ohm loudspeakers, plus a 70V line output for distribution systems.

The 1594C operates from a 120V or 240V ac source or from a 28V dc battery. Designed for rack mounting, the 1594C is four rack units high and 8½ inches deep. A hinged front panel allows servicing without removing the amplifier from the rack.

## SPECIFICATIONS

<b>Gain:</b>	64 dB	<b>Operating Temperature Range:</b>	Up to 55°C (131°F) ambient
<b>Input Sensitivity:</b>	0.8V rms for rated output	<b>Special Features:</b>	Dissipation sensing circuit for protection of output transistors Automatic transfer from ac to dc power if ac power fails High-pass filter (300 Hz cutoff) switch on rear panel
<b>Power Output:</b>	100 watts at less than 1% THD, 50 to 12,000 Hz	<b>Dimensions:</b>	7" (17.8 cm) H 19" (48.3 cm) W 8½" (21.6 cm) D
<b>Frequency Response:</b>	±1 dB, 20 to 20,000 Hz at 1 watt output. ±1 dB, 50 to 12,000 Hz at rated output.	<b>Weight:</b>	35 pounds (15.88 kg)
<b>Input Impedance:</b>	15,000 ohms (potentiometer) 150 or 600 ohms balanced with 15095A Line Transformer 15,000 ohms balanced with 15335A Line Transformer	<b>Color:</b>	Black
<b>Load Impedance:</b>	4, 8, 16, 50 ohms	<b>Accessories (must be ordered separately):</b>	15095A Line Transformer 15335A Line Transformer
<b>Load Voltage:</b>	20, 28, 40, 70.7 volts	<b>Design and Performance Approvals</b>	Underwriters Laboratories listing 209J for Commercial Audio Systems, File E8783(N) Underwriters Laboratories listing 89MO for Fire Protective Signaling Systems, File S2925(N)
<b>Output Impedance:</b>	Less than 10% of nominal load impedance		
<b>Noise Level:</b>	85 dB below rated output		
<b>Gain Control:</b>	Potentiometer, continuously variable		
<b>Power Required:</b>	100/120/220/240V ac, 50/60 Hz 20 watts at zero signal 290 watts at 100 watts output — or — 24/28V dc (battery (-) is ground) 0.2 amp at zero signal 8.5 amps at 100 watts output		

## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The power amplifier shall be capable of operating from a 100/120/220/240V ac line or from a 24/28V dc battery. The power supply shall automatically transfer the power to dc operation if ac power fails. An octal socket shall be provided on the rear panel for installation of an accessory line transformer. The front panel shall be hinged to permit access to the chassis interior without removing the amplifier from the equipment rack.

The power amplifier shall meet the following criteria. Gain, 64 dB. Input sensitivity, 0.8V rms for rated output. Power output, 100 watts at less than 1% THD from 50 Hz to 12 kHz. Frequency response at 1 watt output, ±1 dB from 20 Hz to 20 kHz and ±1 dB 50 Hz to 12

kHz at rated output. Input impedance; 15,000 direct or balanced with line-bridging transformer accessory, 150 or 600 ohms balanced with line-matching transformer accessory. Load impedance; 4, 8, 16 and 50 ohms. Load voltage; 20, 28, 40 and 70.7 volts. Output impedance, less than 10% of nominal load impedance. Noise level, 85 dB below rated output. Operating temperature range, up to 55°C (131°F). Dimensions, 7" H x 19" W x 8½" D. Weight, 35 pounds. Color, black.

The power amplifier shall be Underwriters Laboratories listed for use in commercial audio systems and fire protection signaling systems.

The power amplifier shall be the ALTEC Model 1594C.



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