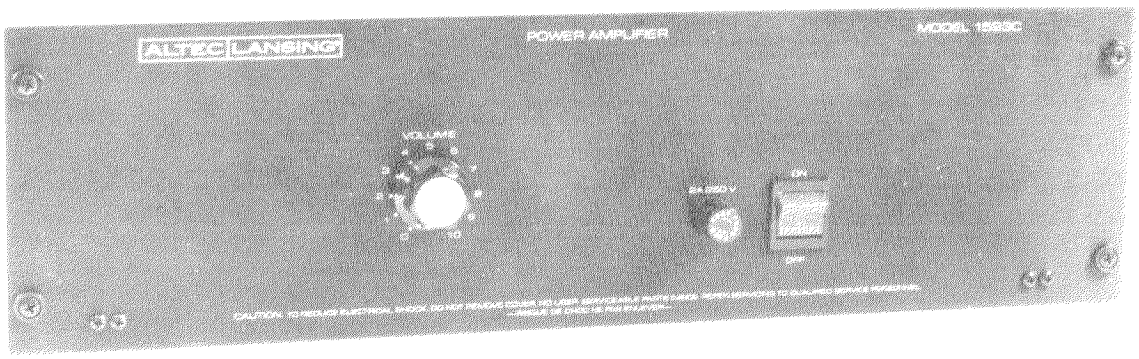
ALTEC LANSING

1593C
POWER AMPLIFIER



UL LISTED 209J

DESCRIPTION

The 1593C Power Amplifier is a solid-state unit delivering 50 watts of power at less than 1% total harmonic distortion (THD) from 50 Hz to 12 kHz. The amplifier provides outputs for 4-ohm, 8-ohm and 16-ohm loudspeakers, plus a 70-volt line output for distribution systems. In addition to the high-impedance input, the amplifier has an octal socket to accept a line-isolation transformer. A selectable high pass filter is included for use in speech systems. Cut-off frequency of the filter is 300 Hz.

The 1593C is capable of operation from a 120V or 240V ac source or a negative grounded 28V dc source, and features silent, automatic transfer to dc operation if ac power fails.

Designed for rack mounting, the 1593C occupies three vertical units of rack space (5¼"). A hinged front panel allows servicing without removing the amplifier from the rack.

SPECIFICATIONS

Type:	Power Amplifier
Gain:	61 dB
Input Sensitivity:	0.8 volt rms for rated output
Power Output:	50 watts at less than 1% THD, 50 to 12,000 Hz
Frequency Response:	± 1 dB, 20 to 20,000 Hz at 1 watt output. ± 1 dB, 50 to 12,000 Hz at rated output.
Input Impedance:	15,000 ohms (potentiometer) 600 ohms balanced with 15095A plug-in transformer 15,000 ohms balanced with 15335A transformer
Load Impedance:	4, 8, 16, 100 ohms
Load Voltage:	14, 20, 28 (25V, 40-watt), 70 volts
Output Impedance:	Less than 10% of nominal load impedance
Noise Level:	−38 dBm or 85 dB below rated output
Controls:	Power on/off switch Potentiometer, continuously variable composition High-pass filter switch (rear)
Power Supply:	100/120/220/240V ac, 50/60 Hz 13 watts at zero signal 85 watts at 17 watts output 145 watts at 50 watts output OR 24/28 volts dc (battery (−) is ground 0.2 amp at zero signal 2.5 amps at 17 watts output 4.0 amps at 50 watts output
Operating Temperature Range:	Up to 50°C (131°F) ambient
Special Features:	Automatic transfer from ac to dc power in the event of ac power failure Dissipation sensing device for protection of output transistors High-pass filter (300 Hz)
Dimensions:	5¼" H x 19" W x 7⅜" D (13.33 cm H x 48.26 cm W x 18.73 cm D)
Weight:	23 pounds (10.45 kg)
Color:	Black
Accessories (must be ordered separately):	15095A Plug-in Line Transformer 15335A Plug-in Bridging Transformer
Design and Performance Approvals:	Underwriters Laboratories listing 209J for Commercial Audio Systems, File E8783(N) Underwriters Laboratories listing 89MO for Fire Protective Signaling Systems, File S2925(N)

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 performance criteria. Gain, 61 dB. Input sensitivity, 0.8V rms for rated output. Power output, 50 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 ohms (potentiometer), 600 ohms balanced with 15095A plug-in transformer, 15,000 ohms balanced with 15335A transformer. Load impedance; 4, 8, 16 and 100 ohms. Load voltage; 14, 20, 28 (25V, 40-watt), and 70 volts. Output impedance, less than 10% of nominal load impedance. Noise level, −38 dBm or 85 dB below rated output. Operating temperature range up to 55°C (131°F) ambient. Dimensions, 5¼" H x 19" W x 7⅜" D. Weight, 23 pounds. Color, black.

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

ALTEC LANSING®

P.O. BOX 26105, OKLAHOMA CITY, OK 73126-0105, U.S.A