



8001 POWER AMPLIFIER

Product Description

The Crest Audio 8001 power amplifier is a compact, extremely high-power amplifier designed to meet the most stringent needs of professional use in concert touring, high quality sound reinforcement, and professional fixed installations.

A three rack-space amplifier, the 8001 uses forced-air to cool channel heat sinks mounted in a back-to-back tunnel configuration. Stereo, parallel, and bridged mono operating modes can be chosen with a rear-panel Mode Select switch. Actively balanced female XLR input connections and 5-way output binding post connectors are provided for each channel.

The 8001 is fully compatible with the other Professional Series amplifiers, Octal Socket Accessories and the NexSys® computer-controlled audio system.

Design and Construction

The no-compromise approach in the 8001's electrical design and mechanical construction provides the ultimate in reliability and performance. Only high-grade components are used for the modular sub-assemblies in this ultra-strong, single piece steel chassis.

8001 Features

- NexSys ready
- Toroidal power transformer
- Tunnel cooling
- 105 CFM AC fan, with twin speed option
- High thermal mass heat sinks
- Balanced XLR inputs
- 5-way output binding post connectors
- Stereo/Parallel/Bridged Mono mode selector switch
- Rear panel ground lift jumper
- 8001 protection circuitry:
 - Clip Limiting prevents speaker damage with gentle gain reduction at clip threshold.
 - IGM (Instantaneous Gain Modulation) monitors connected loads to detect conditions that may overstress output devices, allowing safe operation into nominal 2Ω impedances.
 - AutoRamp gradually increases gain to attenuator setting level when amplifier is turned on.
 - Other protection circuitry: comprehensive thermal management, and short circuit, DC voltage, turn-on/off transient, current inrush and sub/ultrasonic input protection.
- Ultra-strong, single piece steel chassis
- Octal Accessory sockets
- Recessed, stepped attenuators
- Front panel circuit breaker/power switch
- Modular construction
- Five-year warranty (USA, Canada, U.K. & many other countries).



Crest Professional Series Amplifiers are fully compatible with the NexSys Computer-Controlled Audio system.



Power Specifications	8Ω Stereo	4Ω Stereo	2Ω Stereo	8Ω Bridged	4Ω Bridged
1kHz, <0.025% THD+N	750 W	1225 W	1400 W	2450 W	2800 W †
20Hz-20kHz, <0.1% THD+N	720 W	1200 W	1400 W	2250 W	2800 W †

Figures are Watts per channel, both channels driven. †Continuous sine wave power is limited by current rating of front panel circuit breaker and IGM circuit.



8001 POWER AMPLIFIER

SPECIFICATIONS

	1kHz, <0.025% THD+N	20Hz-20kHz, <0.1% THD+N
8Ω Stereo Power	750W	720W
4Ω Stereo Power	1225W	1200W
8Ω Bridged Mono Power	2450W	2250W
2Ω Stereo Power	1400W	1400W
4Ω Bridged Mono Power	2800W	2800W
Max RMS Output Voltage (each channel)	91V	
Peak Output Voltage (each channel)	129V	
Frequency Response (+0 / -0.3dB, 1W/8Ω)	20 Hz-20 kHz, -3dB @ 53kHz	
Power Bandwidth (rated power at 4Ω, 1% THD+N)	20 Hz-20 kHz, +0/-0.2dB	
Protection Circuitry	Clip Limit, IGM, AutoRamp, High Temp. short-circuit, DC voltage, turn-on/off transient, sub/ultrasonic input.	
THD+N (rated power at 4Ω, 1kHz)	<0.025%	
SMPTE IMD (rated power at 8Ω, 60Hz & 7kHz)	<0.1%	
Damping Factor (10-400Hz at 8Ω)	400:1	
Input CMRR (1kHz)	>60 dB	
Input Sensitivity (rated power at 4Ω)	1.75V RMS	
Voltage Gain	X40	
Input Impedance (balanced)	>20kΩ	
Hum and Noise ("A" weighted, full power, 4Ω)	> -100 dB	
Crosstalk ("A" weighted, full power, 4Ω)	> -60dB	
Class	H	
Input Connectors (per channel)	Female XLR (pin 3+), Octal Socket	
Output Connectors (per channel)	2 pair 5-way output binding posts	
Filter Storage	70,000 μF	
Power Supply (factory configured)	100V-240V, 50-60Hz	
Idle Current Draw (120V)	1.6A	
1/8 Power Curr. Draw (typical music, 120V/4Ω)	10.8A	
1/3 Power Curr. Draw (continuous music, 120V/4Ω)	21.8A	
Max Curr. Draw (circuit breaker rating, 120V/4Ω)	37.5A	
Thermal Emissions (1/8 Power, 4Ω)	3380 BTU/hr	
Thermal Emissions (1/3 Power, 4Ω)	6140 BTU/hr	
Cooling	Rear to front tunnel heatsink, 105 CFM AC fan, 2-speed optional.	
Controls	Front panel: 2 attenuators, circuit breaker/power switch; Rear panel: mode switch, signal ground lift jumper.	
LED Indicators (per channel)	Clip/Limit, Signal, Temp/DC, Active	
Construction	14 ga. steel chassis, 0.25" (6mm) aluminum front panel	
Dimensions (Height x Width x Depth)	5.25"x19"x15" (16" to rear ears) 133mm x 483mm x 381mm (406mm to rear ears)	
Gross Weight, Net Weight	85 lbs. (38.6 kg.), 80 lbs. (36.0 kg.)	
Warranty	5 years, parts and labor†	

† USA, Canada, U.K., and many other countries. Power figures are watts per channel, both channels driven. Crest Audio reserves the right to make improvements in manufacturing or design which may affect specifications. Crest Audio specification literature is available in downloadable PDF file format; visit our website at <http://www.crestaudio.com>. ©1997 Crest Audio Inc. 5/21/97

Architect's & Engineer's Specifications

The power amplifier shall have two channels. Each channel shall deliver a minimum of 720 watts at 8 ohms, 1200 watts at 4 ohms and 1400 watts at 2 ohms; per channel, both channels driven, 20Hz-20kHz, <0.1% THD+N. In bridged mono mode, it shall deliver 2250 watts at 8 ohms, and 2800 watts at 4 ohms, 20 Hz-20kHz, <0.1% THD+N.

The amplifier shall be rear-to-front tunnel-cooled, with a 105 CFM AC fan.

The amplifier shall have circuitry to protect itself and the speaker load from output short circuits, DC voltage on outputs, and thermal overload. The amplifier shall include circuitry to gradually increase gain to attenuator setting levels when the amplifier is turned on, and circuitry for impedance sensing and clip limiting.

The amplifier shall have a voltage gain of X40 with an input sensitivity of 1.75V for rated power at 4 ohms. The hum and noise level shall be greater than 100 dB below rated output, "A" weighted. SMPTE IMD shall be less than 0.1%, rated power at 8Ω, 60Hz & 7kHz. The amplifier shall have a class H output stage with a modulated power supply. The frequency response shall be greater than 20Hz-20kHz, +0/-0.3dB (1W/8Ω).

The amplifier shall operate at 100-240V, 50-60 Hz AC (configured at factory). Maximum current draw shall not exceed 37.5 amperes at 120VAC, (circuit breaker limited), with both channels driving continuously into a 4 ohm resistor.

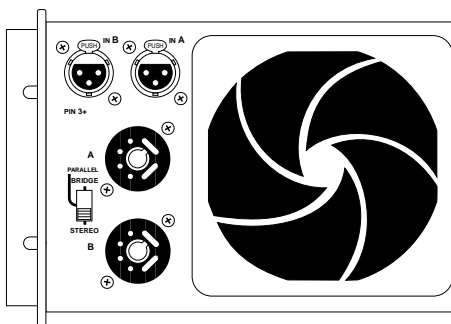
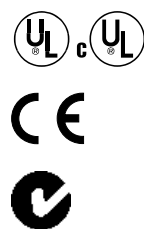
The amplifier front panel shall include Active, Temp/DC, Signal Present and Clip/Limit LED indicators for each channel, a combination power switch/magnetic circuit breaker and recessed and detented gain pots.

Rear panel input connectors shall be XLR type, one female per channel. Output connectors shall be 5-way binding posts, two pair per channel. Octal sockets for optional accessory modules and a signal/ground lift jumper shall be provided.

A rear-panel AC mains cord having an appropriate AC plug for the intended operating voltage shall be provided (market dependent).

The packaging of the amplifier shall allow for standard rack mounting without requiring space between similar units. Dimensions shall be 19" (483mm) wide, 5.25" (133mm) high and 15" (381mm) deep. It shall weigh 80 lbs. (36.0kg) net. The amplifier shall be designated the Crest Audio Model 8001.

Rear View



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

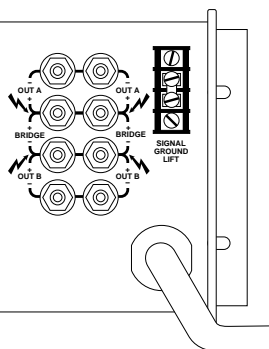
AVIS : RISQUE DE CHOQUE ELECTRIQUE—NE PAS OUVRI
WARNING TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT
EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

ATTENTION: POUR EVITER LE RISQUE D'INCENDIE OU DE CHOQUE
ELECTRIQUE, NE PLACEZ PAS CE DISPOSITIF SOUS LA PLUIE OU A
L'UMIDITE

— USA ONLY —

MODEL #	MAXIMUM INPUT CURRENT @ 120V, 60Hz	OUTPUT POWER IN WATTS PER CHANNEL, 2Ω
8001	30 AMPS	1400W

OUTPUT - CLASS H WIRING MAY BE USED



B500001