

7001 POWER AMPLIFIER

Product Description

The Crest Audio 7001 power amplifier is a compact, high-power amplifier designed to meet the stringent needs of professional use in concert touring, high quality sound reinforcement, professional fixed installations, and studio monitoring.

A two rack-space amplifier, the 7001 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. An actively balanced female XLR input connection and 5-way output binding posts are provided for each channel.

The 7001 is fully compatible with the other Crest Audio Professional Series amplifiers, Octal Socket Accessories and the NexSys® computer-controlled audio system.

Design and Construction

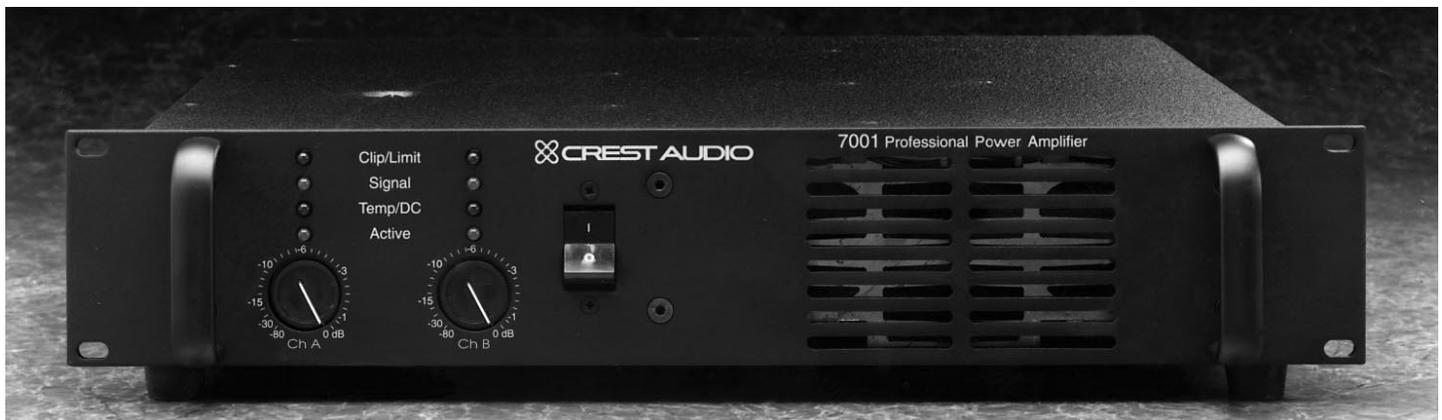
The no-compromise approach in the 7001's electrical design and mechanical construction provides the ultimate in reliability and performance. Only high-grade components are used for the modular sub-assemblies in this ultra-strong, single piece steel chassis.



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

7001 Features

- NexSys-ready
- Toroidal power transformer
- Tunnel cooling
- Dual, variable speed DC fans
- 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
- Extensive 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).



Power Specifications	8Ω Stereo	4Ω Stereo	2Ω Stereo	8Ω Bridged	4Ω Bridged
1kHz, <0.02% THD+N	560W	810W	850W	1650W	1700W †
20Hz-20kHz, <0.05% THD+N	550W	715W	850W	1510W	1600W †

† 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.



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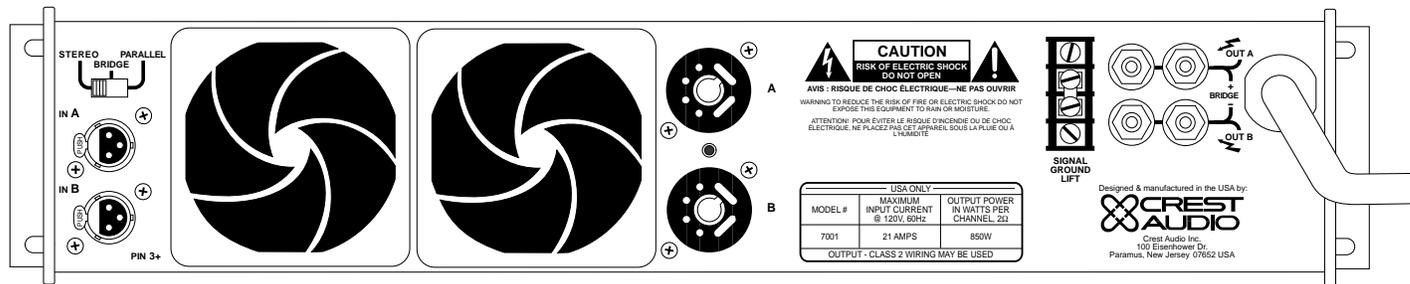
SPECIFICATIONS

	1kHz, <0.02% THD+N	20Hz-20kHz, <0.05% THD+N
8Ω Stereo Power	560W	550W
4Ω Stereo Power	810W	715W
8Ω Bridged Mono Power	1650W	1510W
2Ω Stereo Power	850W	850W
4Ω Bridged Mono Power	1700W	1600W
Max RMS Output Voltage (each channel)	83V	
Peak Output Voltage (each channel)	117V	
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)	<0.02%	
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)	1.4V RMS	
Voltage Gain	X40	
Input Impedance (balanced/unbalanced)	>20kΩ/10kΩ	
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)	5-way output binding posts	
Filter Storage	80,000 μF	
Power Supply (factory configured)	100V-240V, 50-60Hz	
Idle Current Draw (120V)	1.4A	
1/8 Power Curr. Draw (typical music, 120V/4Ω)	7.8A	
1/3 Power Curr. Draw (continuous music, 120V/4Ω)	15.5A	
Max Curr. Draw (circuit breaker rating, 120V/4Ω)	21.0A	
Thermal Emissions (1/8 Power, 4Ω)	2503 BTU/hr	
Thermal Emissions (1/3 Power, 4Ω)	4505 BTU/hr	
Cooling	Rear to front tunnel heatsink, 2 variable speed DC fans	
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	16 ga. single piece steel chassis, .187" (5mm) alum. front panel	
Dimensions (Height x Width x Depth)	3.5"x19"x15" (16" to rear ears) 89mm x 483mm x 381mm (406mm to rear ears)	
Gross Weight, Net Weight	57 lbs. (25.88 kg.), 52 lbs. (23.60 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



Rear View



Architect's & Engineer's Specifications

The power amplifier shall have two channels. Each channel shall deliver a minimum of 550 watts at 8 ohms, 715 watts at 4 ohms and 850 watts at 2 ohms; per channel, both channels driven, 20Hz-20kHz, <0.05% THD+N. In bridged mono mode, it shall deliver a 1510 watts at 8 ohms, and 1600 watts at 4 ohms, 20 Hz-20kHz, <0.05% THD+N.

The amplifier shall be rear-to-front tunnel-cooled, with two variable-speed DC fans.

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 1.4V 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 21 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 actively balanced and have female XLR-type, 3-pin connectors (pin 3+). Output connectors shall be 5-way output binding posts. 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 3.5" (89mm) high x 19" (483mm) wide x 15" (381mm) deep. It shall weigh 52.0 lbs. (23.6kg) net. The amplifier shall be designated the Crest Audio Model 7001.



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