



3301 POWER AMPLIFIER

Product Description

The Crest Audio Model 3301 power amplifier is a compact, medium-power amplifier designed to meet the demands of concert touring, studio monitoring, high-quality sound reinforcement, and professional installations.

Crest Audio developed this model in conjunction with the biggest names in touring sound. These amplifiers meet the specific demand for medium-power amplifiers with full-range capabilities, but optimized for mid- and high-frequency applications. The output section operates purely in Class AB, with no dynamic switching of supply rail voltages. The result is the cleanest, most transparent mid- and high-frequency audio power imaginable from amplifiers that never compromise quality.

A forced-air configuration is used to cool channel heat sinks mounted in a back-to-back tunnel arrangement. An actively balanced female XLR input connection, Octal Socket, and 5-way output binding posts are provided for each channel.

The 3301 is fully compatible in design with other Crest Audio Professional Series amplifiers, Octal Socket Accessories, and the NexSys® computer-controlled audio system.

Design and Construction

The 3301 is built exclusively in Crest Audio's own USA manufacturing facility, with internal components selected for premium quality and proven durability. Each modular subassembly is pre-tested, and the assembled 3301 receives a rigorous "hot room" burn-in before thorough final checkout on precision test equipment.

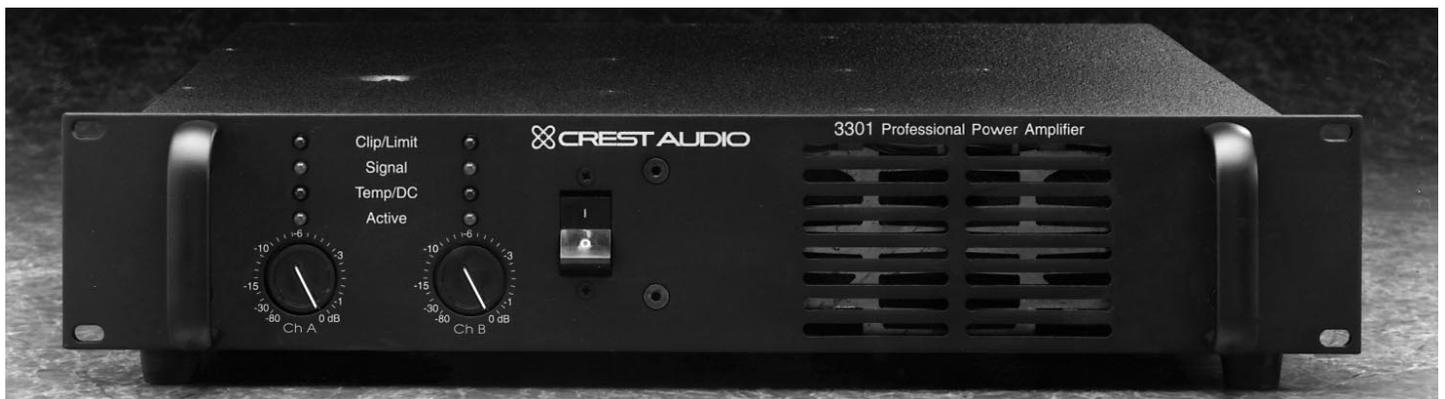
Only high-grade components are used for the modular sub-assemblies in this ultra-strong, steel single piece chassis.

3301 Features

- Crest Audio's legendary "overbuilt" power supply
- Toroidal power transformer
- Latest generation of high-speed, wide-bandwidth output devices
- Twin tunnel cooling with back-to-front air flow
- 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
- 3301 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.
 - 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.
- 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	8 Ohms Stereo	4 Ohms Stereo	2 Ohms Stereo	8 Ohms Bridged	4 Ohms Bridged
1kHz, 0.025% THD+N	240 W	380 W	425 W	725 W	830 W
20Hz-20kHz, 0.1% THD+N	220 W	330 W	400 W	660 W	800 W

Figures are Watts per channel, both channels driven.



3301 POWER AMPLIFIER

SPECIFICATIONS

	1kHz, <0.025% THD+N	20Hz-20kHz, <0.1% THD+N
8Ω Stereo Power	240W	220W
4Ω Stereo Power	380W	330W
2Ω Stereo Power	425W	400W
8Ω Bridged Mono Power	725W	660W
4Ω Bridged Mono Power	830W	800W
Max RMS Output Voltage (each channel)	49V	
Peak Output Voltage (each channel)	69V	
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)	0.908V 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	AB	
Input Connectors (per channel)	Female XLR (pin 3+), Octal Socket	
Output Connectors (per channel)	5-way output binding posts	
Filter Storage	29,200 μF	
Power Supply (factory configured)	100V-240V, 50-60Hz	
Idle Current Draw (120V)	1.0A	
1/8 Power Curr. Draw (typical music, 120V/4Ω)	6.25A	
1/3 Power Curr. Draw (continuous music, 120V/4Ω)	9.0A	
Max Curr. Draw (circuit breaker rating, 120V/4Ω)	11.0A	
Thermal Emissions (1/8 Power, 4Ω)	2235 BTU/hr	
Thermal Emissions (1/3 Power, 4Ω)	2821 BTU/hr	
Cooling	Rear to front tunnel heatsink, variable speed DC fan	
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	47.0 lbs (21.34 kg), 42.0 lbs (19.07 kg.)	
Warranty	5 years, parts and labor†	

Architect's & Engineer's Specifications

The power amplifier shall have two channels. Each channel shall deliver a minimum of 220 watts at 8 ohms, 330 watts at 4 ohms and 400 watts at 2 ohms, 20Hz - 20kHz, <0.1% THD+N. In bridged mode, it shall deliver 660 watts at 8 ohms and 800 watts into 4 ohms, 20Hz - 20kHz, <0.1% THD+N.

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

It shall have circuitry to protect itself and the speaker load from output short circuits, DC voltage on outputs, and thermal overload. It shall have RMS clip limiting and impedance sensing circuitry. Output relays shall protect the speakers from any type of amplifier failure.

The amplifier shall have a voltage gain of X40 with an input sensitivity of 0.908V for rated power at 4 ohms. The hum and noise level shall be at least 100 dB below rated output, "A" weighted. SMPTE IMD shall be less than 0.1% at rated power, 60Hz and 7kHz. The amplifier shall have a class AB 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 either 100, 120, 220, or 240 volts, 50-60 Hz AC (configured at factory). Maximum current draw shall not exceed 11 amperes at 120VAC or 6 amperes at 240VAC (limited by front panel breaker for bench tests), 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.

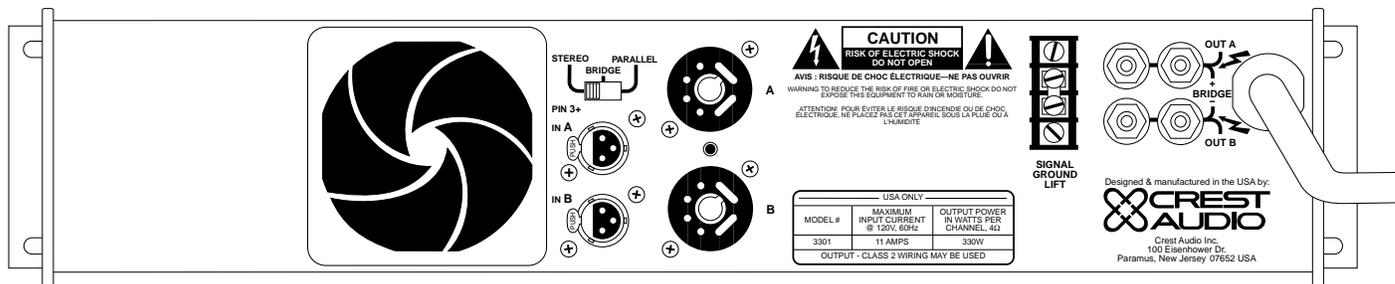
A rear-panel AC mains cord having an appropriate AC plug for the intended operating voltage shall be provided (market dependent).

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. The amplifier shall have a net weight of 42.0 lbs. (19.07kg). The amplifier shall be designated the Crest Audio Model 3301.

† 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



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