

# PA8

## 8-Channel Power Amplifier

### TECHNICAL DATA



### Feature Highlights

- 8 separate amplifier channels
- 10 Watts per channel into 4 Ohms in non-bridged mode, 20 Watts per channel bridged into 8 Ohms
- Passively cooled
- Full short circuit and thermal overload protection
- No turn-on “thump”

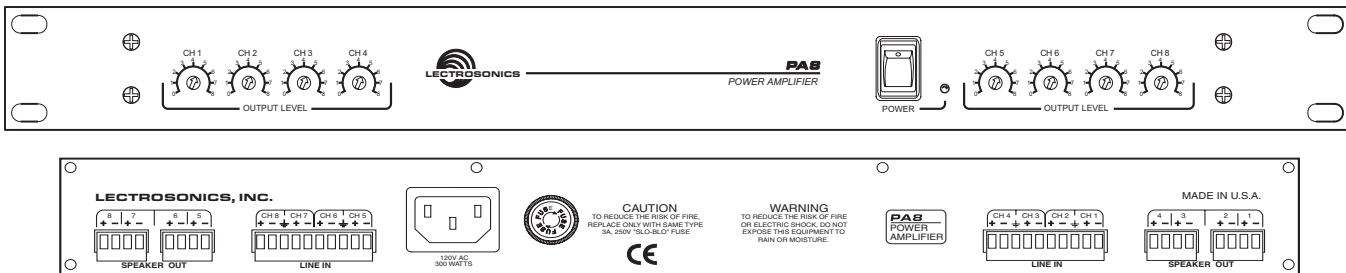
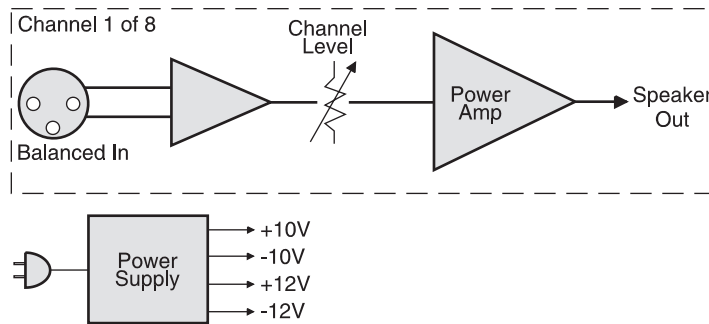
The PA8 8 Channel Power Amplifier is a unique 1 RU solution for distributed loudspeaker systems using mix-minus zoning. The amplifier is typically used with Lectrosonics matrix and DSP processors for sound reinforcement systems in boardrooms, courtrooms and conferencing systems.

Eight separate power amplifiers, each with an output power capability of 10W (4 Ohms) or 6W (8 Ohms) provide amplification for each loudspeaker or zone-grouped loudspeakers in the system. The PA8 is passively cooled, and features full short-circuit and thermal overload protection. The amplifier outputs are also muted at turn-on and turn-off, to eliminate transients.

The front panel includes a power switch and individual level controls for each channel. The rear panel includes a standard 3-pin AC power socket for IEC 60320 C13 cords. Line level audio inputs and speaker level outputs are made via depluggable “Phoenix” connectors.

Two adjacent channels of a PA8 may be bridged to increase the power output. In the bridged mode, the minimum speaker load is 8 Ohms, and maximum power output is 20W at 8 Ohms. The Channel Level controls are set to the same level in this mode.

# PA8 Block Diagram



The input to the PA8 is fully balanced and RF filtered. The level control feeds a monolithic power amplifier. Each power amplifier is internally power limited to protect itself from short circuits, excessively low load impedances, or highly reactive loads. Thermal limiting is also integrated into the power amplifier, with an intelligent shutdown mode that minimizes thermal shock to the device under extreme operation.

The PA8 uses a straightforward, low parts count design for long term reliability. The heart of the power supply of the PA8 is a low radiation toroidal transformer. The toroidal transformer generates less heat than a conventional type and emits considerably less 60 cycle energy. This is particularly important when the PA8 is used in close proximity to microphone preamplifiers.

Any two adjacent channels may be used in the bridged mode for higher power (20W into 8 Ohms or 12W into 16 Ohms).

Line Input	
Type:	Electronically balanced and RF filtered
Impedance:	20k Ohms, Balanced or Unbalanced
Rated Output:	10 Watts RMS per channel at 4 Ohms 6 Watts RMS per channel at 8 Ohms 20 Watts RMS bridged at 8 Ohms
Input Level for Rated Output:	-2dBu (615mVRMS) at maximum level +15dBu (4.36VRMS) at mid level
Maximum System Gain	
Line Input to Speaker Out:	20dB

Signal-to-Noise Ratio:	88dB relative to 10W at 4 Ohms
System THD:	Less than 0.1%, 20Hz to 20kHz (10W into 4 Ohms)
System IMD:	Less than 0.1%, 60Hz/7kHz (10W into 4 Ohms)
Slew Rate:	12V/uS
Power Consumption:	200 Watts max at 120VAC
Euro Version*	200 Watts max at 230VAC
Weight:	8 lbs, 9 ozs
Dimensions:	19" wide x 1 3/4" high x 8 1/4" deep

PA8TD-0603

\*Euro version, I-PA8 runs on 220VAC.

