

8-channel Power Amplifier



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”

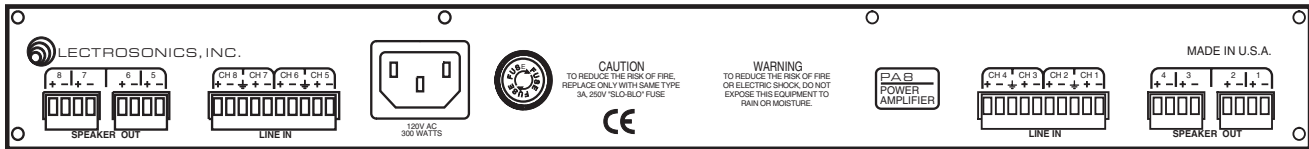
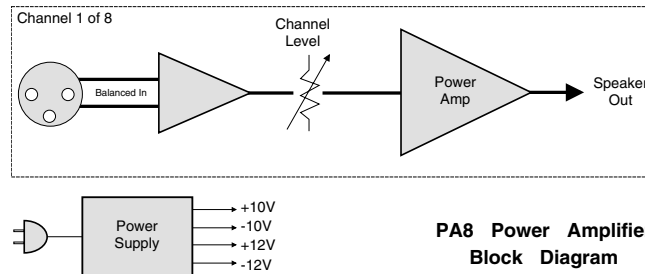


The PA8 8 Channel Power Amplifier is a unique single rack-space solution for zoned, distributed loudspeaker systems. The PA8 has eight separate power amplifiers, each with an output power capability of 10W (4 Ohms) or 6W (8 Ohms). The PA8 is passively cooled, and features full short-circuit and thermal overload protection. The amplifier outputs are muted at turn-on and turn-off, to eliminate transients.

The standard PA8 configuration would have a balanced output device (like the MM8 Matrix Mixer) driving each channel of the PA8. The speaker is connected in the non-bridged mode. In this non-bridged mode maximum output power is 10W into 4 Ohms, or 6W into 8 Ohms.

Two adjacent channels of a PA8 may be connected to allow bridging operation. In the bridged mode, the minimum speaker load is 8 Ohms, and maximum power output is 20W into 8 Ohms. Since the Channel Level controls of both bridged channels will be active, they should be set to the same level. The loudspeaker is connected to the “+” output terminals of each channel, while the “-” outputs are left unconnected.

PA8 Block Diagram



The input to the PA8 is fully balanced and RF filtered. The level control feeds a monolithic power amplifier. The amplifier has a voltage gain of 26dB (x20). 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. Any two adjacent channels may be used in the bridged mode for higher power (20W / 8 Ohms or 12W / 16 Ohms).

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.

Line Input		Signal-to-Noise Ratio:	88dB relative to 10W at 4 Ohms
Type:	Electronically balanced and RF filtered	System THD:	Less than 0.1%, 20Hz to 20kHz (10W into 4 Ohms)
Impedance:	20k Ohms, Balanced or Unbalanced	System IMD:	Less than 0.1%, 60Hz/7kHz (10W into 4 Ohms)
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	Slew Rate:	12V/uS
Input Level for Rated Output:	-2dBu (615mVRMS) at maximum level +15dBu (4.36VRMS) at mid level	Power Consumption:	200 Watts max at 120VAC Euro Version* 200 Watts max at 230VAC
Maximum System Gain		Weight:	8 lbs, 9 ozs
Line Input to Speaker Out:	20dB	Dimensions:	19" wide x 1 3/4" high x 8 1/4" deep
			PA8TD-0603

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



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