AM8/AM8TC

Automatic Microphone Mixers

TECHNICAL DATA

- **Direct and mixed outputs**
- **Mic/line selectable inputs**
- **Built in Compressor/Leveller**
- **Expansion ports for larger systems**
- **Patented Adaptive Proportional Gain mixing algorithm***
- **Low and high frequency shelving controls on each channel (AM8TC)**
- **RS-232 controllable - AMX® and Crestron™ compatible**

While preserving the basic benefits of NOM attenuation and minimum recirculated sound, the AM8 adds extremely simple setup, a seamless automatic mixing algorithm and low cost. State-of-the-art analog audio circuitry is digitally controlled with a patented algorithm to provide exceptional performance and value.

The patented Adaptive Proportional Gain* algorithm is a unique process that allocates the gain applied to each channel after comparing the individual channel level with an overall reference level. The reference level is a mix of all active channels, so it automatically adapts to varying background noise levels in the room. The channel with the most signal receives the most gain.

In addition to the adaptive gain allocation, the algorithm also provides an “intelligence” that prevents background noise and non-speech sounds from interfering with the auto mixing function. The algorithm also keeps track of which channel has been the most active (loudest for the longest time period) and skews a priority toward that channel. The automatic skewing is damped to keep it from responding to brief signal transients.

A very smooth compressor/leveller is included to add an important finishing touch, making the AM8 a complete automatic level control system. The compressor/leveller protects amplifers from overload and maintains a consistent audio level with varying voice levels at the microphones.

The AM8 was designed to operate with any type of microphone or line level source. DIP switches on the rear panel adjust the preamp gain range for the input level. Front panel controls provide a fine adjustment for an exact match into whatever component follows the AM8 in the signal chain.

Simple, accurate level adjustment is assured by a single front panel knob for each channel, which simultaneously adjusts the input gain and the level of participation in the gain allocation. Individual channel levels can be accurately adjusted by ear, using nothing other than a talker’s voice as a sound source.

The AM8 is easily configured for transparent operation in any sound reinforcement, teleconferencing or recording application. Multiple units can be “daisy chained” for more than 8 channels. Connections for RCW-VLS remote control pots or switches are provided for individual channels and for the overall mixed output.

An RS-232 port allows most of the functions of the AM8 to be controlled either by a computer or a dedicated control system such as AMX or Crestron. The current version of the software can also be downloaded from the website.

*US Patent Numbers: 5,414,776 and 5,402,500

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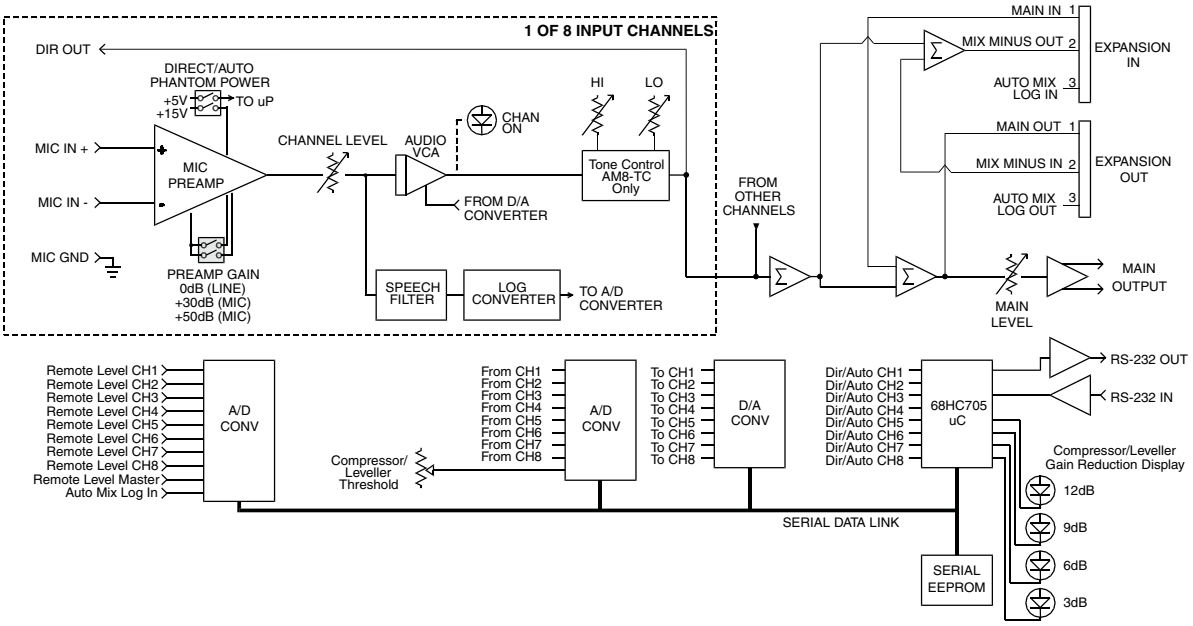
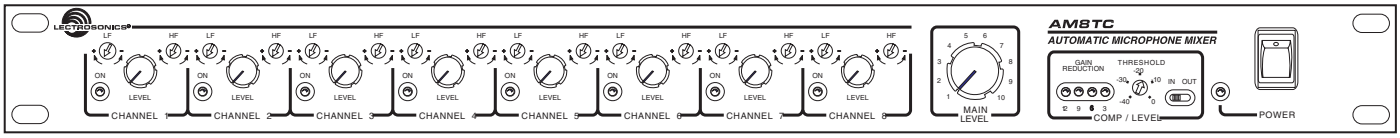
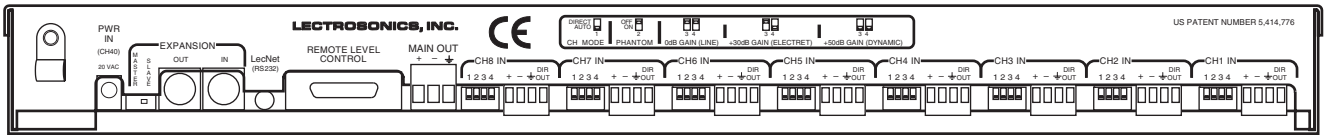
AM8 Block Diagram



The AM8 is available in two versions, the AM8 and the AM8TC with tone control.





Specifications

Mic/Line Input type:	Balanced and RF filtered Impedance: >2.5K, any gain Input Gain Settings: 0dB, +30dB, +50dB EIN, 20-20KHz: -126dB (+50dB gain)
Maximum Input Level:	+20dBu at 0dB gain -10dBu at +30dB gain -30dBu at +50dB gain
Remote Level Control Range:	6dB/Volt; 0 to 5V + off
Compressor/Leveller:	Threshold: -40dBu to 0dBu Maximum Gain Reduction: 25dB
Tone Controls (AM8TC):	Shelving type Turnover freq: 1 kHz +/-10 dB at 100 Hz +/-10 dB at 1kHz
Maximum System Gain:	75dB (input to main out)
System THD:	<0.1%; +10dBu out at any gain setting
System IMD:	<0.1%; +10dBu out at any gain setting
Phantom Power:	+15V (selectable per channel)
Power Consumption:	10 Watts max. @ 20VAC
Weight:	3 lbs., 4 ozs.
Dimensions:	1¾ x 8 x 19 inches

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