



H A Harman International Company

# AS 8/AS 8 TC

## Automatic Microphone Mixers



### Description

While preserving the basic benefits of NOM attenuation and minimum recirculated sound, the AS 8 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/leveler is included to add an important finishing touch, making the AS 8 a complete automatic level control system. The compressor/leveler can protect amplifiers from overload and maintains a consistent audio level with varying voice levels at the microphones.

The AS 8 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 AS 8 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 AS 8 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 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 AS 8 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 Web site.

The AS 8 TC features low and high frequency shelving controls on each input channel.

### Features

- Direct and mixed outputs
- Mic/line selectable inputs
- Built in Compressor/Leveler
- Expansion ports for larger systems
- Patented Adaptive Proportional Gain mixing algorithm\*
- Low and high frequency shelving controls on each channel (AS8TC)
- RS-232 controllable - AMX® and Crestron™ compatible

### Specifications

<b>Mic/Line Input type:</b>	Balanced and RF filtered
<b>Impedance:</b>	>2.5K, any gain
<b>Input Gain Settings:</b>	0dB, +30dB, +50dB
<b>EIN, 20-20KHz:</b>	-126dB (+50dB gain)
<b>Maximum Input Level:</b>	+20dBu at 0dB gain -10dBu at +30dB gain -30dBu at +50dB gain
<b>Remote Level Control Range:</b>	6dB/Volt; 0 to 5V + off
<b>Compressor/Leveler:</b>	Threshold: -40dBu to 0dBu
<b>Maximum Gain Reduction:</b>	25dB
<b>Tone Controls (AS8TC):</b>	Shelving type  Turnover freq: 1 kHz +/-10 dB at 100 Hz +/-10 dB at 1kHz
<b>Maximum System Gain:</b>	75dB (input to main out)
<b>System THD:</b>	<0.1%; +10dBu out at any gain setting
<b>System IMD:</b>	<0.1%; +10dBu out at any gain setting
<b>Phantom Power:</b>	+15V (selectable per channel)
<b>Power Consumption:</b>	10 Watts max. @ 20VAC
<b>Weight:</b>	3 lbs., 4 ozs.
<b>Dimensions:</b>	1¾ x 8 x 19 inches

AMX® is a registered trademark of AMX Corp.

Crestron™ is a trademark of Crestron Electronics, Inc. USA

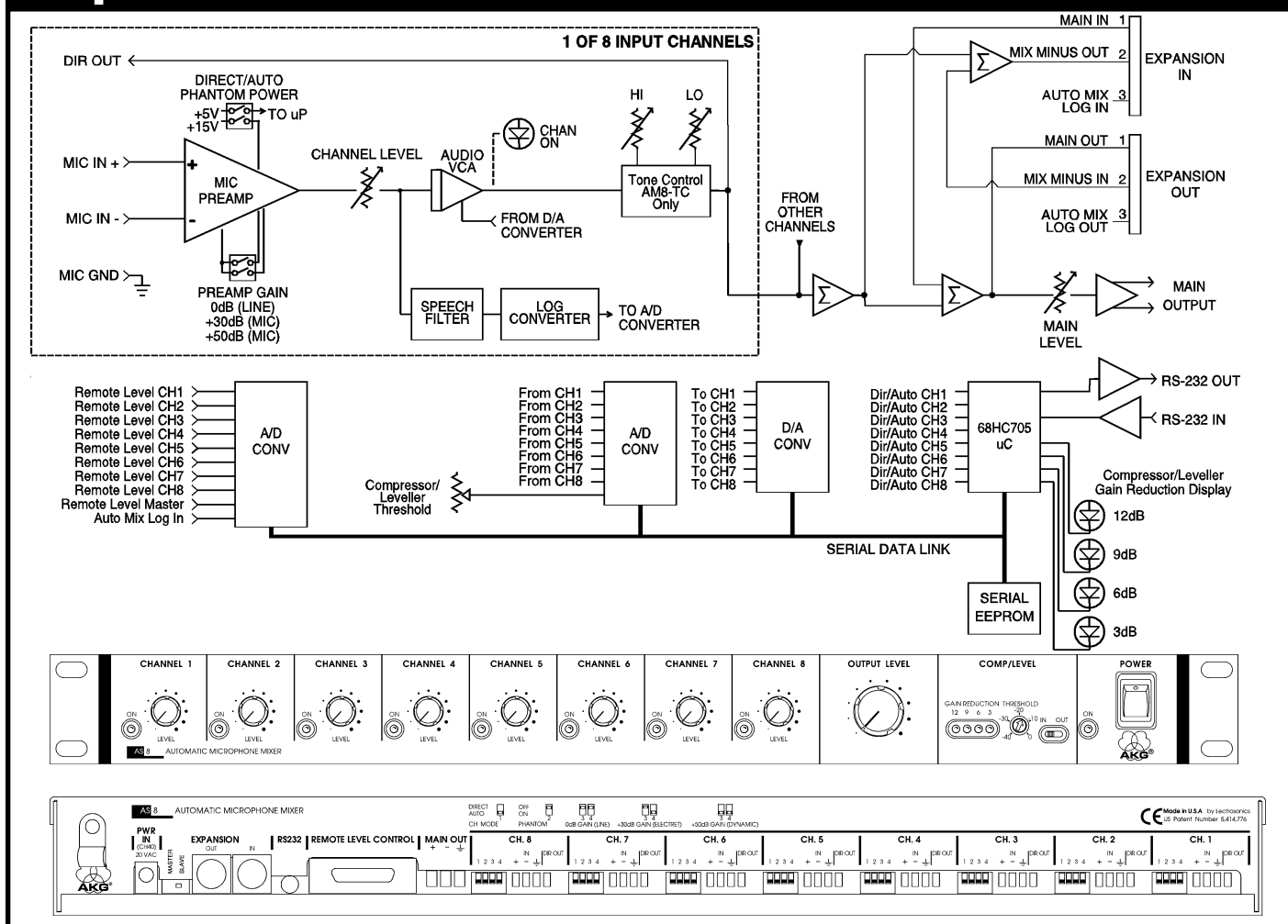
\*US Patent Numbers: 5,414,776 and 5,402,500

# Architects and Engineers Specifications

The automatic microphone mixer shall incorporate an adaptive proportional gain mixing technique and automatic skewing between input channels to minimize comb filtering. The mixer shall contain eight input channels. Each input shall be electronically balanced and be capable of receiving mic or line level input signals. Phantom power shall be provided for each input as well as a direct output. (For Model AS 8 TC: Each input shall incorporate both a high frequency and low frequency tone control.) The main output shall be electronically balanced and have an integral compressor/leveler and master level control. Expansion ports shall provide IO access to the main and mix audio busses.

The mixer shall be controllable via an RS-232 serial port and shall adhere to the LecNet™ communication protocol. The mixer shall meet the following performance criteria. Frequency response: 20 Hz - 20 kHz. THD < 0.1% @ +10 dBu output. IMD < 0.1% @ +10 dBu output. Input Impedance: > 2.5K ohm. Maximum Input Level: +20 dBu @ 0 dB setting; -10 dBu @ +30 dB setting; -30 dBu @ +50 dB setting. Equivalent Input Noise: -126 dB @ +50 dB gain. Maximum Output Level: +26 dBu. Maximum Gain: 75 dB (input to output). The mixer shall be rack mountable and occupy 1 RU. The automatic microphone mixer shall be the AKG Acoustics Model AS 8 (AS 8 TC).

## Graphical Data



AKG is constantly improving and modifying its products, therefore, specifications are subject to change without notice.

### Limited Warranty

Valid only in the United States. AKG Acoustics warrants AKG products against defects in material or workmanship for a period of two years from the date of original purchase for use, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. Important: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center. No responsibility is assumed for any special, incidental

or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law. Simply take or ship your AKG product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) Note: No other warranty, written or oral is authorized by AKG Acoustics, Inc. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above exclusions and limitation may not apply to you.

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