

- Solid State Construction — Silicon Planar Transistors
- 60db Signal to Noise Ratio
- 9 Principal Inputs with Speech-Music Switches
- Compact 3½" High — Rack or Surface Mounting
- XLR Type Connectors

## AM2A MIXER

The Langevin Model AM2A is a low-level, solid-state microphone mixer of excellent quality, designed to provide exceptional reliability under 24 hour continuous duty type operation. It employs plug-in modular type construction affording great flexibility in meeting many diverse operational requirements.

The AM2A was designed to complement the Langevin AM1A Solid State Mixer-Amplifier by providing up to nine (9) additional principal low-level inputs. Insertion of the AM2A output into "Wild input #1" on the AM1A provides at total of fifteen (15), individually controlled, low level inputs, all subject to the "Master Gain" and Equalization controls of the AM1A. The output of the AM2A Mixer is also adequate to drive the Langevin AM50, 50 watt, solid state power amplifier with which it is also compatible. Power for the mixer is derived directly from the AM1A. Several of these units may also be powered from Langevin Type PS4900 supply.

Standard configuration includes seven (7) low level inputs employing low impedance microphone pre-amplifier modules (Type #AM 4100) and two (2) Type #SC 4401 strapping cards and one (1) Type AM 4300 booster amplifier. Each input channel has a type XLR microphone connector, speech-music switch and mixer control. Versatility of the AM2A is enhanced by the use of other Langevin plug-in modules such as the Type AM4300 for low-level, high impedance source inputs or Type BR4402 for high-level bridging inputs. Other accessory modules such as strapping (SC 4401) and blank (BC 4401) cards are available for special applications. Provision is made via compatible plugs and receptacles for direct interconnection of both signal and power circuits of the AM2A Microphone Mixer with the AM1A.

The extreme reliability and great flexibility of the AM1A Mixer-Amplifier and companion AM2A Microphone-Mixer, make them ideal for use in high quality sound reinforcement control and amplification applications. The compact size, solid state construction and light weight also make them highly suitable for portable or remote usage.

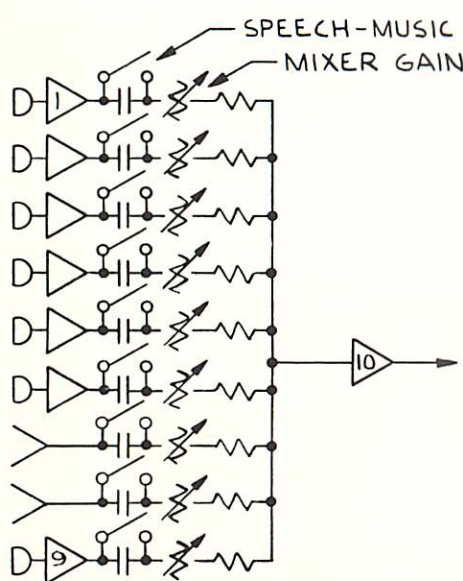
# Langevin AUDIO EQUIPMENT



## SPECIFICATIONS:

The electrical performance of the AM2A will largely depend upon the "4000 Series" input modules used in it. The following specifications will generally apply.

<b>Gain:</b>	With specified input modules the full rated output will be developed from an input as low as $-74$ dbm.	<b>Power Requirements:</b>	Approximately 2.5 ma at 42 volts D.C. May be obtained from power output receptacle on Langevin AM1A.
<b>Frequency Response:</b>	$\pm 1.5$ db over range 30 Hz to 15 kHz	<b>Controls:</b>	Nine (9) mixer controls, AB Moulded composition type.
<b>Input Impedances:</b>	A. From 150/250 ohm source; (actual impedance approximately 1500 ohms) (Standard AM 4100) B. 250 K ohm, low level (accessory AM 4300) C. 6000 ohms, high level (accessory BR4402 Bridging Card)	<b>Input Connectors:</b>	Standard XLR
<b>Output Impedance:</b>	To be loaded by 250 K ohms.	<b>Output Connector:</b>	Standard "phono" plug
<b>Distortion:</b>	Less than 0.25% total harmonic distortion at 0.5 volt output.	<b>Power Connector:</b>	Cinch Jones P-304RP
<b>Noise:</b>	60 db signal to noise ratio when driven by microphone level of $-60$ dbm or higher.	<b>Size:</b>	17" wide (19" for rack mounting) $3\frac{1}{2}$ " high, 9" deep overall
		<b>Color Scheme:</b>	Neutral Greys
		<b>Mounting:</b>	Rack or surface mounted. In rack mounting unit can be tilted up or down $15^\circ$
		<b>Construction:</b>	Solid State Modular, plug in



AMPLIFIERS 1 THRU 7 - AM 4100  
STRAPPING CARD 8 THRU 9 - SC-4401  
AMPLIFIER #10 - AM 4300

BLOCK DIAGRAM  
LANGEVIN AM2A  
MICROPHONE MIXER

## ARCHITECTS AND ENGINEERS SPECIFICATIONS:

1. Unit shall be Langevin Model AM2A Microphone Mixer Amplifier.
2. The microphone-mixer shall be of the rack/shelf mounting (choose one) type. It shall have nine (9) principal inputs adaptable to high or low impedance microphones or lines by means of solid state plug-in modules. Each input will be independently and separately controlled by its individual mixer.
3. Full rated output shall be developed from a signal input level as low as  $-74$  dbm. Output level shall be compatible with mixer input levels in the Langevin AM1A Mixer-Preamplifier for common mixing in the Model AM1A.
4. Frequency response will be flat within  $\pm 1.5$  db over the frequency range of from 30HZ to 15KHZ. There will be less than 0.25% total harmonic generation at output level of 0.5 volts. Signal to noise ratio shall be 60 db or greater with microphone

levels of  $-60$  dbm. Power requirements shall be 42 volts DC nominal (50V maximum) at 2.0 to 2.5 ma. Output impedance — to be loaded with 250 kOhm.

5. Mixer shall be equipped with nine (9) XLR type microphone connectors, nine (9) mixer controls and nine (9) Speech-Music switches.
6. Mixer shall fit standard 19" rack and shall occupy no more than  $3\frac{1}{2}$ " of panel space with provisions for tilting up or down at  $15^\circ$  angle. Construction shall be solid-state, utilizing silicon planar NPN diffused junction transistors.
7. Each input channel shall be equipped with a "Speech-Music" switch. In the "speech" position frequencies below 300 Hz shall be attenuated in a ratio which is roughly in inverse proportion to frequency, reaching a value of 18 db at 50 Hz.

## ACCESSORIES:

**AM4100** Low Z Microphone Pre-Amp (Std in AM1A and AM2A)  
**AM4101** Low Noise Version of AM4100  
**AM4300** High Z Microphone Pre-Amp  
**AM4301** Low Noise Version of AM4300

**AM4500** RIAA pre-amplifier module  
**SC4401** Strapping card  
**BC4001** Blank card  
**BR4402** Bridging input card