

- Preamplifier, Booster Amplifier or Program Amplifier
- Very Low Noise Generation
- Extreme Dependability
- All Transistors are Silicon Planar NPN
- Low Heat Dissipation
- Connections are Plug-in Type

**AM16  
PLUG-IN  
PREAMPLIFIER  
TRANSISTOR TYPE**

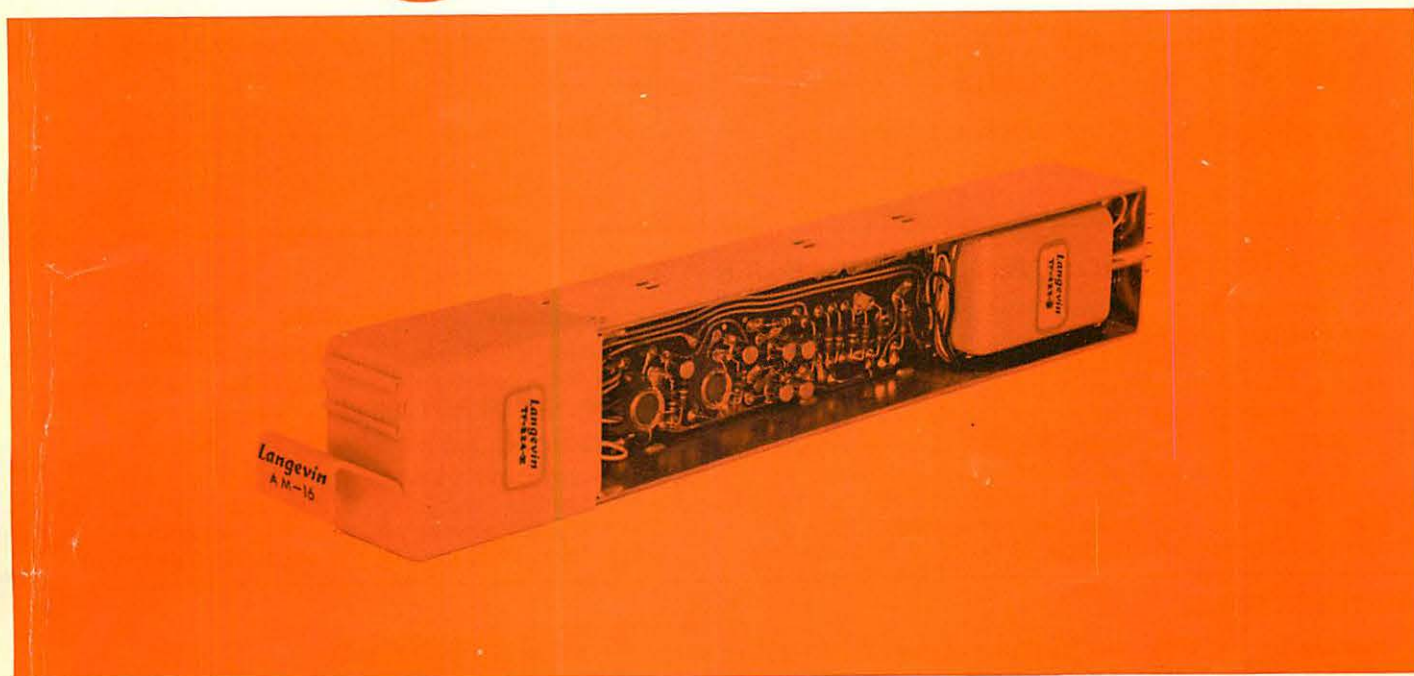
The AM16 is primarily a microphone pre-mixing amplifier. However, its performance also qualifies it for use as a post-mixing (booster) and as a low-level program amplifier. Of special note is the very LOW NOISE GENERATION figure ( $-127$  dbm equivalent input, unweighted).

Extreme dependability has been stressed. All components are operated well within their ratings and no electrolytic capacitors or "chemical" parts have been used. All transistors are silicon planar NPN. The amplifier is not subject to damage from input or output overload or impedance mismatch.

Output power delivered to load is rated at  $+24$  dbm, which may be reduced to  $+18$  dbm by the omission of a strap connection. This lowers the supply current demanded from the external 24 v. DC source.

All conditional strapping of the amplifier . . . whether for input impedance, output impedance, or output capability . . . is performed on the mounting facility which receives it, and not on the amplifier proper. This allows complete interchangeability of all units within a given system without regard to their individual modes of employment.

# Langevin AUDIO EQUIPMENT



**SPECIFICATIONS:**

Performance Figures Listed Below Are GUARANTEED Values.

**Gain:** 45 ± 0.5 db

**Input Z:** 50, 150, 600 ohms

**Load Z:** 150, 600 ohms

**Harmonic Generation: (Total)** Not over 0.5% from 30 cps to 20 Kcps @ +18 dbm (on "low-power").  
Not over 0.75% from 30 cps to 20 Kcps @ +24 dbm (on "high-power").

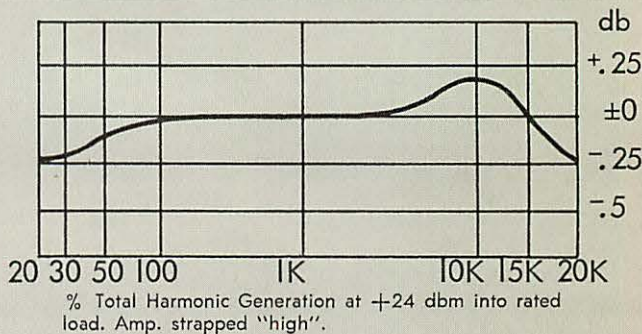
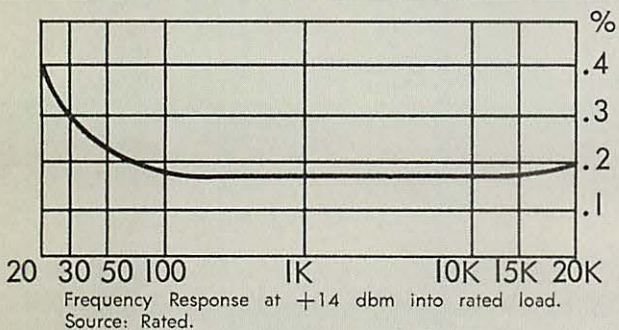
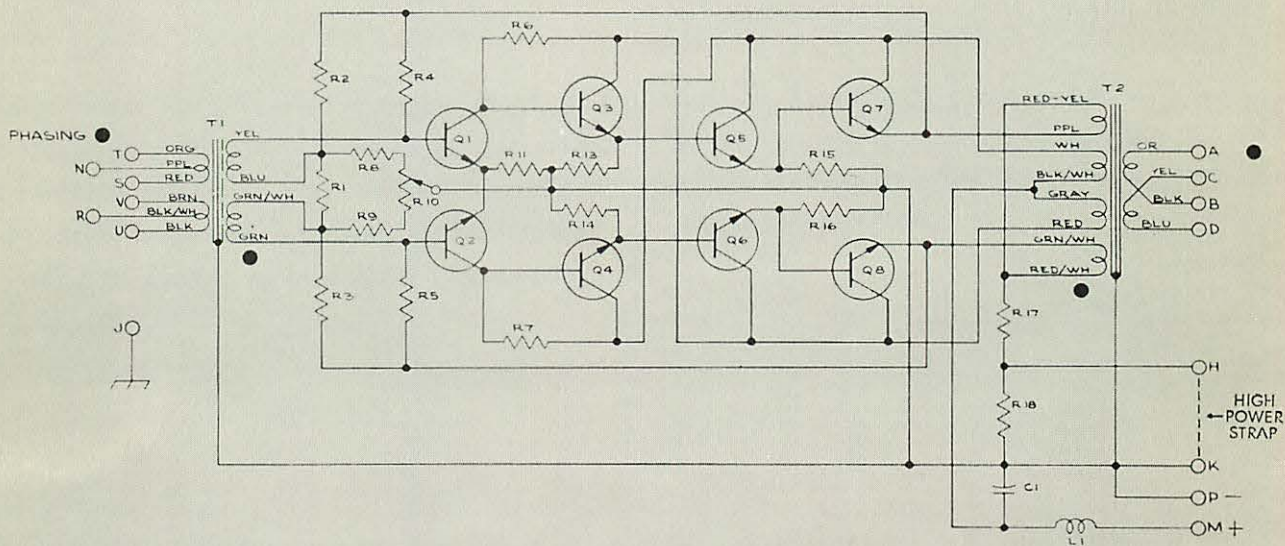
**Noise Generation:** Not over an input—equivalent level of -127 dbm (measured over bandwidth 20 cps to 20 Kcps).

**Frequency Response:** ±0.5 db from 20 cps to 20 Kcps (measured at approx. +14 dbm output).

**Size:** Approximately 1 3/4" high x 1 1/2" wide x 10 1/2" long (not including plug pins).

**Power Requirement:** 24 v. DC (with negative grounded). 110 ma when on "high-power". 55 ma on "low".

**Environmental Requirement:** Temperature of mounting space must not exceed 65°C (145°F), including rise due to AM16/s. (Dissipation of each AM16 is approx. 2 watts on "high-power.")



**ARCHITECTS' AND ENGINEERS' SPECIFICATIONS**

The amplifier shall be Langevin AM16. It shall be plug-in. It shall have magnetically and electrostatically shielded input and output transformers. Input impedances shall be 50, 150 and 600 ohms. Output impedances shall be 150 and 600 ohms. All strapping for impedance and "high-low-power" shall be on the tray or cabinet which receives the amplifier, and not on the amplifier proper. Noise level shall not exceed an equivalent input of -127 dbm, unweighted. Gain at 1 Kc shall be 45 ±0.5 db. When strapped for high power, harmonic generation at +24 dbm shall not exceed 0.75% from 30 cps to 20 Kc. When on

low power, supply current demand shall be reduced, and harmonic generation at +18 dbm shall not exceed 0.5% from 30 cps to 20 Kc. Response at approx. +14 dbm shall be uniform ±0.5 db from 20 cps to 20 Kc. Amplifier shall employ only silicon transistors, and no electron tubes. It shall not contain any electrolytic capacitors, nor any part with known shelf or service life. Size shall be approx. 1 3/4" high, 1 1/4" wide, and 10 1/2" long not including plug pins. Plug pins shall be gold-plated. Color scheme shall be gray and iridized cadmium plate.

**ACCESSORIES:**

- Mounting Tray No. TRY6 (for installation of single AM16 Amplifier).
- Rack Cabinet No. RC612 (for installation of as many as 12 AM16 Amplifiers in 1 3/4" of vertical space in standard rack).
- Power Supply No. PS221 (10 amperes).
- Power Supply No. PS222 (3 amperes).