

- Rated for Continuous (sine-wave) Duty
- Overload and Short Circuit Protected
- Wide Choice of Input Modules
- Self Contained Power Supply

AM50B SOLID STATE POWER AMPLIFIER

GENERAL

The AM50B is a general purpose, solid state power amplifier designed for monitoring, recording and sound re-inforcement applications. It is rated for continuous operation and is inherently protected against damage from accident or mis-application by its circuitry design.

The amplifier is designed to be compatible with the Langevin Model AM1A Mixer-Amplifier. Signal levels are compatible. The AM50B is single channel input.

Harmonic generation in the AM50B does not exceed 0.25% over the 20 Hz to 20 kHz range at rated power output. Its frequency response is within 1 db of the 1 kHz figure over the range of 20 Hz to 20 kHz with roll-off filter incorporated.

Provision is made to incorporate various modules of the AM4000 series to provide several types of input circuitry.

The AM50B is stocked less output transformer, providing a nominal 8 ohm output impedance, or as the AM50BT including output transformer. With output transformer various impedances from 4 to 128 ohms are available.

With BR4402 bridging input module substituted for SC4401 strapping card (standard equipment) several AM50B amplifiers may be bridged either locally or remotely across the 600 ohm output of the AM1A or type AM4101 or AM4300B input modules may be employed in place of SC4401 to provide a single, low or high impedance, low level microphone input.

The styling and construction of the AM50 is compatible and complementary to the AM1A-AM2A series of Langevin equipment. Its power supply is self contained and the amplifier operates from nominal 117 volts, 50/60 Hz mains. The AM50B and AM50BT are both 5 $\frac{1}{2}$ " high x 17" wide x 10" deep. Width increases to 19" with optional rack mounting brackets fitted.

Langevin AUDIO EQUIPMENT



SPECIFICATIONS:

The electrical performance of the AM50B will largely depend upon the AM4000 series input module used in it. The following data applies to the AM50B when equipped with SC4401 strapping card which is supplied as "standard" equipment.

Input Sensitivity: An input of approximately 220 mV rms will produce full rated output.

Actual Input Z: With SC4401, over 100 kOhms. (Other input module choices will change this figure — See 4000 series module data sheets as listed below.)

Nominal Load Z: AM50B (less output transformer): Full power will be delivered into a load of from 4 to 8 ohms.
AM50BT (with output transformer): Full power into various loads of from 4 to 125 ohms (100 ohms equals 70 volt line at this power level.)

Harmonic Generation (AM50B): Not over 0.25% from 20 Hz to 20 kHz at full rated output.

Noise Generation: 86 dB below rated output level.

Frequency Response: With output filter, response is within 1 dB from 20 Hz to 20 kHz.

Rated Power Output: 50 watts continuous sine-wave into nominal load Z over frequency band 20 Hz to 15 kHz. AM50BT: Frequency band 30 Hz to 15 kHz.

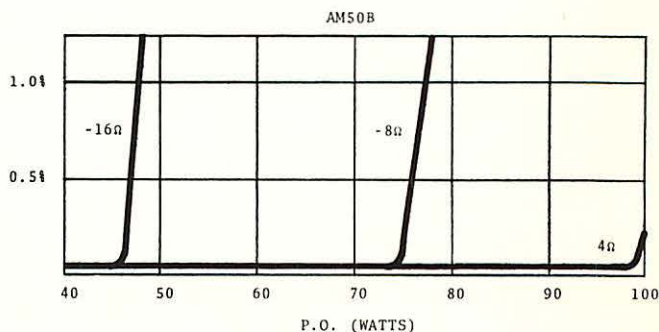
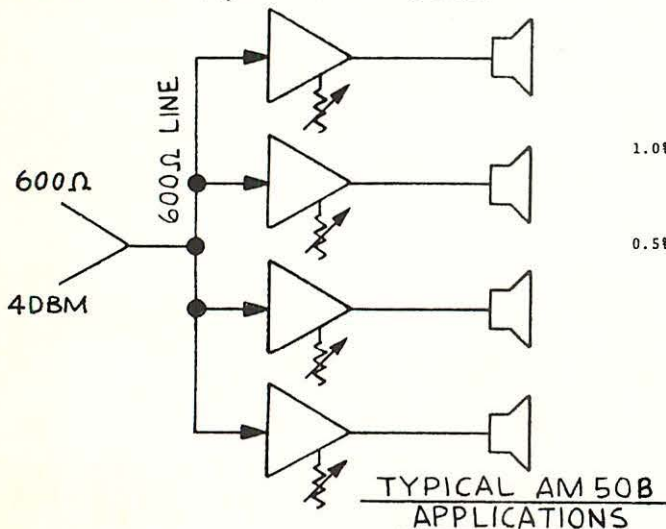
Size: Approximately 5 $\frac{3}{4}$ " high and 17" wide x 10" deep. Addition of optional rack mounting brackets (shipped with unit) increases width to 19" for standard rack mounting.

Mains Requirement: 117 V (nominal) 50/60 Hz. Current demand is 2 Amperes, maximum.

Environmental Requirement: Temperature of mounting space must not exceed 65° C (145° F) including rise due to AM50 (s).

DO NOT OBSTRUCT THE FLOW OF AIR AROUND SIDES OF CHASSIS.

REMOTE OR LOCAL AM50B AMPLIFIERS WITH BR 4402/ INPUT MODULE



ARCHITECTS AND ENGINEERS SPECIFICATIONS:

The amplifier shall be Langevin AM50B ((AM50BT). It shall be of all solid-state construction. The continuous duty power output rating shall be 50 watts sine-wave into nominal load. Its nominal load impedance without output transformer shall be 8 ohms. (Nominal load impedances of from 4 to 128 ohms available on Model AM50BT only). The amplifier shall utilize "plug-in" input modules of the Langevin 4000 series to provide a selection of input impedances and gain. With Langevin SC4401 input module (supplied) sensitivity shall be such that approximately 220 mV rms across the 100 kOhm input impedance of this module will produce full rated output power. Harmonic generation shall not exceed 0.25% from 20 Hz to

20 kHz at rated power output. Frequency response shall be within ± 1 db of the 1 kHz response from 20 Hz to 20 kHz with standard output filter incorporated.

Amplifier shall be powered from nominal 117V, 50/60 Hz, single phase mains. Signal input circuit shall be a terminal strip. Master gain control shall be provided on AM50. The amplifier shall occupy $5\frac{1}{4}$ " of standard 19" rack space when fitted with rack mounting brackets which are included. Unit is 10" deep x $5\frac{1}{4}$ " high by 17" wide less brackets.

ACCESSORIES:

AM4500 RIAA pre-amplifier module
AM4101 Low Z, low level input module
BR4402 Bridging input module
AM4300B High Z, low level input module
AM1A 6 channel mixer-amplifier
TF389 Output Transformer