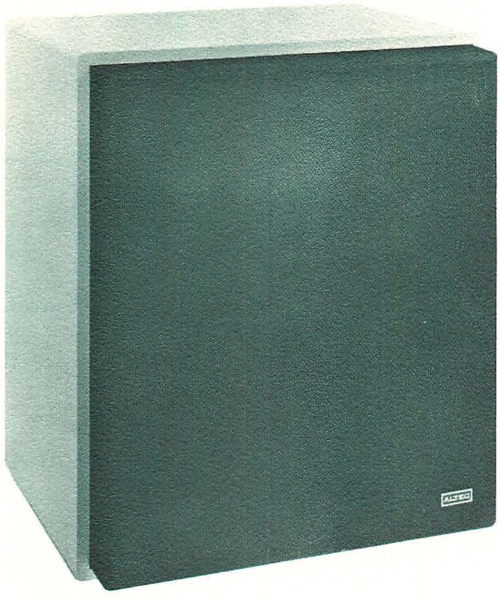
9846 Biamplified Studio Monitor Speaker System

9846



The Altec 9846 biamplified studio monitor speaker system is a unique combination of quality components assembled in a sealed enclosure capable of transient accuracy heretofore unavailable in a monitor loudspeaker.

The 9846 is designed for applications where extended frequency response, low distortion and wide dynamic range are called for.

Typical applications for the 9846 include recording studio control room monitoring, remix studios, mastering rooms, audition rooms, broadcast studio monitoring and playback, auditoriums, night-clubs, conference rooms, theatres, and church sound reinforcement systems.

ALTEC®

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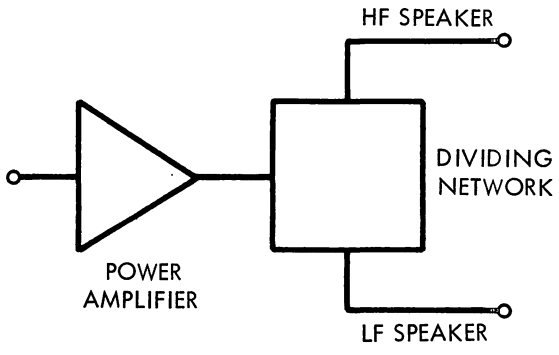
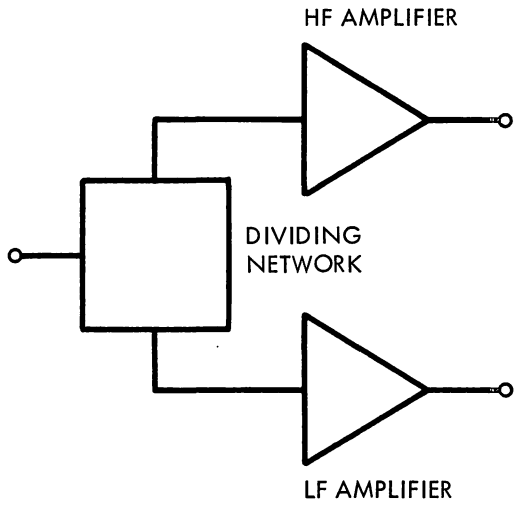
In a conventional loudspeaker system, the dividing network is placed between the amplifier and the high and low frequency loudspeakers — where the insertion loss of the network may consume much of the amplifier power before it reaches the individual loudspeakers.



CONVENTIONAL SYSTEMS

The 771B biamplifier provides 60 watts continuous sine wave power for frequencies below 500 Hz and 30 watts continuous sine wave power for frequencies above 500 Hz. The 90 watts available from the 771B biamplifier may be compared to the power available from larger conventional amplifiers. The sum of the voltages available from each section of the biamplifier would be identical to the voltage produced by a single 175 watt amplifier under many program conditions.



BIAMPLIFICATION

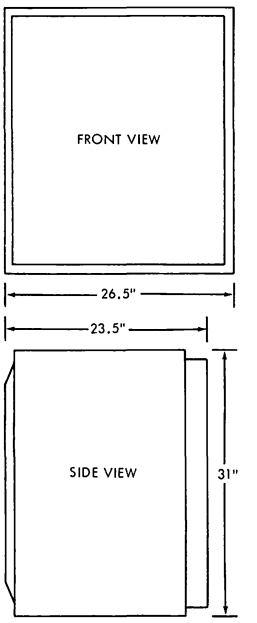
In conventional loudspeaker systems, overdriving the low frequency loudspeaker results in the generation of back EMF which will cause the dividing network to pass distortion components to the high frequency loudspeaker.

With biamplification, there is complete electrical isolation of low and high frequency loudspeakers.

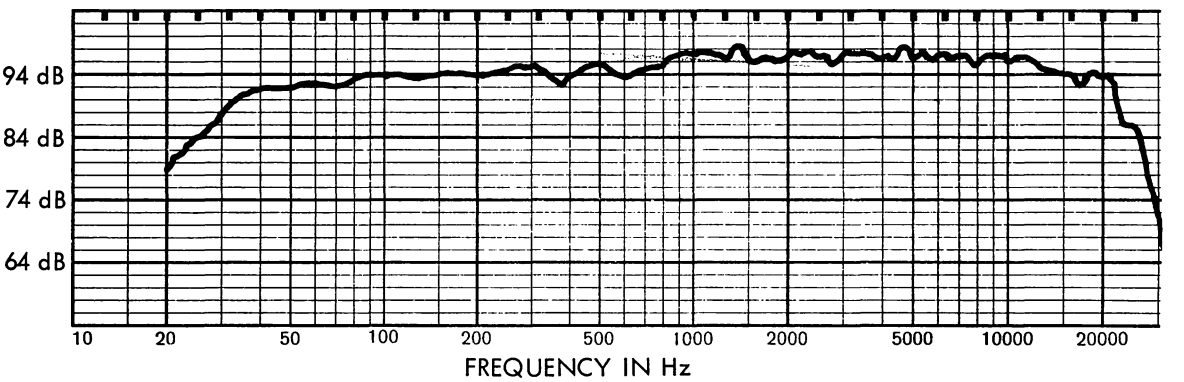
The 771B biamplifier is a solid-state unit set into the rear of the enclosure between two protective rails. Each amplifier may be boosted or shelved over a 21 dB range with separate controls on the panel of the 771B.

The housing is a sealed enclosure constructed from 3/4 inch (19mm) plywood. It has no demountable panels and is heavily braced to prevent unwanted resonances and diaphragmatic interaction. The high frequency horn is located within two inches of the low frequency loudspeaker resulting in the smoothest possible transition from low to high frequency sources.

The voice coils of the high and low frequency elements are precisely located so that the apparent acoustic center of each element is in the same location at crossover. The result is a transition from low to high frequencies that is free of peaks and dips commonly associated with multiple-driver systems. A black grille cloth and light gray resilient epoxy spatter finish provides rugged protection and an attractive appearance.



DIMENSIONAL DRAWING



TYPICAL 9846 FREQUENCY RESPONSE

The on-axis frequency response of a typical production 9846 is shown in the above chart which was made in the Altec anechoic chamber with low frequency control set 6 dB above the high frequency control. This approximates the setting required for typical listening environments.

ALTEC 9846

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The biamplified studio monitor speaker system shall consist of a horn-loaded high frequency driver loudspeaker, a low frequency loudspeaker and an electronic crossover biamplifier. The low frequency component shall be loaded in an infinite baffle enclosure. The biamplifier shall be a solid-state device containing electronic crossover circuitry and separate low and high frequency power amplifiers. The biamplifier shall meet the following performance criteria. Amplifier outputs; 60 watts bass, 30 watts treble. THD at full rated output, less than 0.3% at all frequencies from 30 Hz to 20 kHz. Input sensitivity for rated output, 0.5V rms. Input impedance; 60,000 ohms direct, 600 or 60,000 ohms balanced with selected optional line transformer accessory. Each channel shall have a separate slide-type gain control, variable over a 21 dB range.

The biamplified studio monitor speaker system shall meet the following performance criteria. Frequency response, from 30 Hz to 20 kHz. Pressure sensitivity, 96 dB SPL with 0.08V rms of pink noise from 500-3000 Hz measured on axis 4' from front of speaker systems. (Ref.: 0.0002 dyne/cm^2 for 0 dB SPL.) Crossover frequency, 500 Hz with 12 dB/octave slope. Distribution pattern, 90 degrees horizontal by 40 degrees vertical. Noise level, 80 dB below rated output.

The enclosure shall be constructed from 3/4-inch plywood, heavily braced with no demountable panels and shall be finished in light gray spatter texture resilient epoxy enamel. The grille shall be black fabric stretched on a demountable frame.

The biamplified studio monitor speaker system shall be furnished with the following accessories (select as required and insert quantity):

_____ 15095 Line Transformer _____ 15335 Line Transformer

The biamplified studio monitor speaker system shall be the Altec Model 9846.

NOTICE

We recommend that you obtain your Altec products from factory trained authorized Altec Sound Contractors and Distributors. This will assure you of proper installation, a continuing source of knowledgeable advice, service, and quick warranty protection.

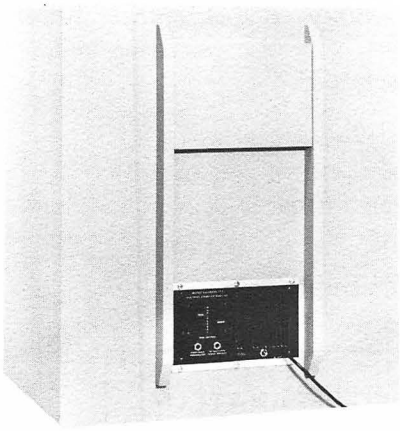
LITHO IN U.S.A. CP-872-5K

The Altec 411-8A low frequency loudspeaker has been developed for operation in sealed enclosures of modest internal volume, and features a four-inch voice coil, a 17 pound (7.71 Kg.) magnet structure, and a highly compliant surround. The 411-8A is capable of producing extended low frequency response with very low distortion, even when driven to exceptionally high power levels.

9846 COMPONENTS

Frequencies above 500 Hz are handled by an Altec 802-8D driver mounted on an Altec 511B sectoral horn.

The 802-8D driver includes an aluminum diaphragm with tangential compliance, a pressure loading cap and a machined phasing plug with two exponential acoustic slots for proper phase relationship between the sound emanating from the center and outer edges of the diaphragm. The voice coil is 1-3/4" (4.45 cm.) in diameter. It is made from edge-wound aluminum ribbon to provide more turns in the magnetic gap, and it operates in a flux density of 15,250 gauss.



9846 REAR VIEW

9846 WITH GRILLE REMOVED

SPECIFICATIONS

Frequency Response:	30 Hz to 20 kHz
Maximum Acoustical Output:	112 dB SPL @ 4 ft (1.219m) equalized for flat response (pink noise) 40 to 15,000 Hz, in a free field
Dispersion:	90^{o} horizontal x 40^{o} vertical
Noise Level (Both Sections):	80 dB below rated output
Biamplifier —	
Input Sensitivity:	0.5v rms direct
	0.5v rms with 15335 Line Transformer
	0.1v rms with 15905 Line Transformer
Power Output:	60 watts at less than 0.3% THD, bass
	30 watts at less than 0.3% THD, treble
Crossover Frequency:	500 Hz, 12 dB/octave slope
Inputs:	High impedance (60,000 ohms)
	Optional 600-ohm balanced with 15095 Transformer
	Optional 60,000-ohm balanced with 15335 Transformer
Dimensions:	31" (78.74 cm) high x 26.5" (67.31 cm) wide x 23.5" (59.69 cm) deep
Finish:	Light gray resilient epoxy enamel, spatter finish. Black grille fabric.
Weight:	118 pounds (53.524 Kg)
Accessories:	Altec 15095 Line Transformer
	Altec 15335 Line Transformer

NOTE

ACCESSORIES MUST BE ORDERED SEPARATELY.