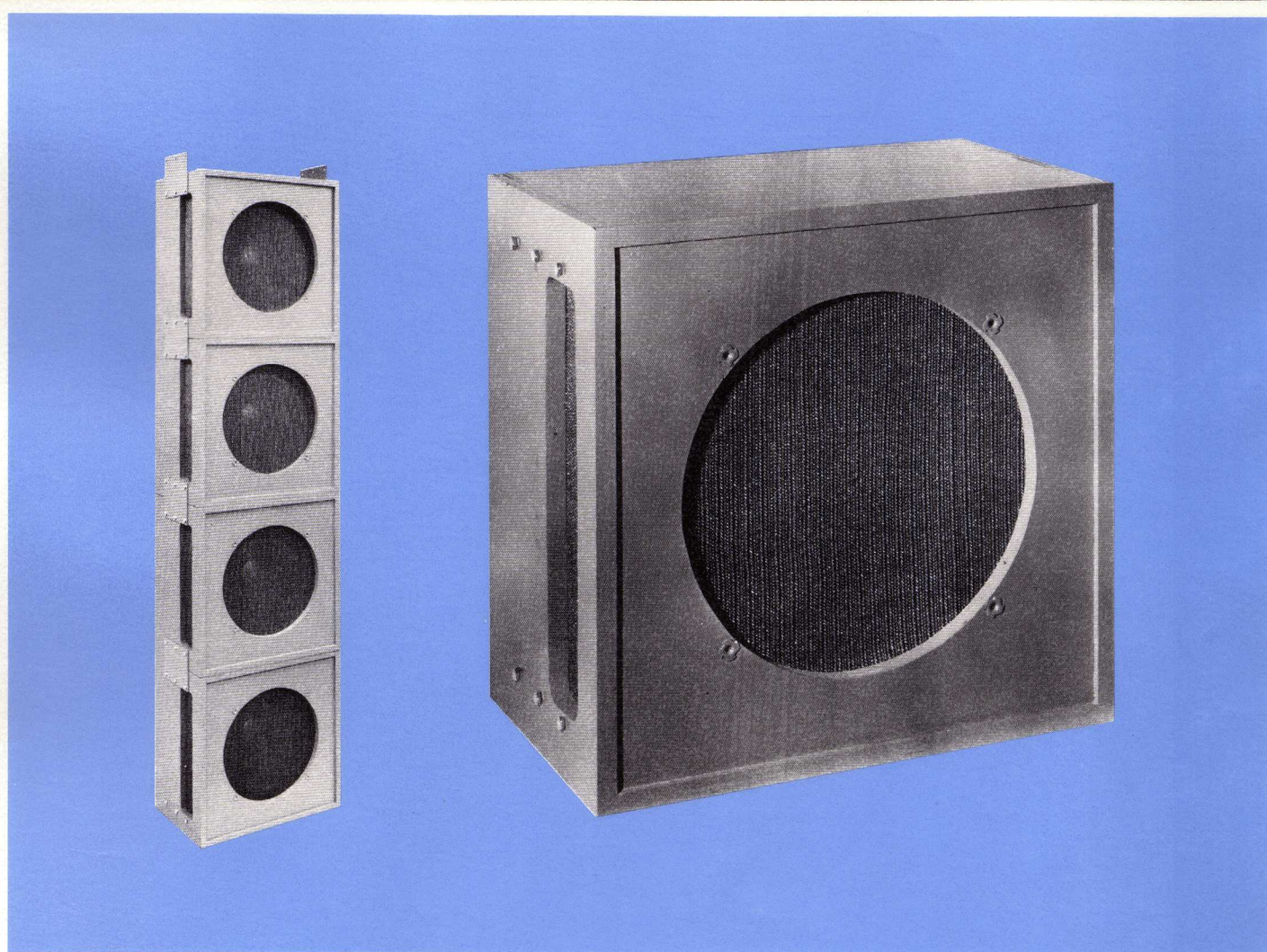


814A LOW-FREQUENCY DIRECTIONAL LOUDSPEAKER



DESCRIPTION

The ALTEC 814A contains a 15" cone radiator, mounted in a small, ported box. The relation of port size to box volume and correct resistive damping allows the sound emanating from the ports to be uniformly delayed over a frequency bandwidth from 100 to 1500 Hz, thus attaining controlled directivity by canceling energy radiation from the rear and sides of the box. This controlled cancellation of rear and side energy radiation allows the low-frequency bandwidth of sound energy produced by the speaker to be directed to the audience areas and to substan-

tially reduce reverberance which could otherwise occur when sound energy is propagated into reflective wall and ceiling surfaces.

The 814A may be used singly or stacked in a vertical array to further control the low-frequency sound distribution pattern. A similar array of high-frequency sectoral or multicellular horns must be used to produce the high-frequency portion of the sound spectrum.

The 814A Low-Frequency Directional Loudspeaker is patented under Pat. No. 3,722,616.

SPECIFICATIONS

Type:	Low-frequency directional loudspeaker	Impedance:	8 ohms
Power Rating:	100 watts continuous pink noise, band-limited from 100 to 1500 Hz	Recommended Crossover Frequency:	800 Hz
Frequency Response:	Uniform from 100 to 1500 Hz	Application:	To be used singly or stacked in vertical arrays
Recommended LF Attenuation:	Not less than 12 dB/octave below 100 Hz	Dimensions:	20" (50.8 cm) H 20" (50.8 cm) W 12" (30.5 cm) D
Polar Distribution Pattern:	Cardioid	Weight:	40 pounds (18.2 kg)
Pressure Sensitivity:	99 dB SPL measured at 4' on axis with 1W input of band-limited pink noise from 300 to 1000 Hz (Ref.: 0 dB = 0.0002 dyne/cm ²)	Finish:	Gray enamel

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The low-frequency directional loudspeaker shall consist of a 15" low-frequency loudspeaker mounted in a small, resistively damped, ported box. Sound emanating from the ports shall be uniformly delayed over the frequency response range, thus controlling directivity by cancelling energy radiation from the rear and sides of the box. The loudspeaker shall meet the following criteria. Power rating; up to 100 watts of continuous pink noise, band-limited from 100 to 1500 Hz. Frequency response, uniform from 100 to

1500 Hz. Polar distribution pattern, cardioid. Pressure sensitivity, 99 dB SPL when measured at 4' on axis with 1 watt input of band-limited pink noise from 300 to 1000 Hz. Input impedance, 8 ohms. Dimensions, 20" H x 20" W x 12" D. Weight, 40 pounds.

The low-frequency directional loudspeaker shall be the ALTEC Model 814A.



1515 SOUTH MANCHESTER AVENUE, ANAHEIM, CALIFORNIA 92803