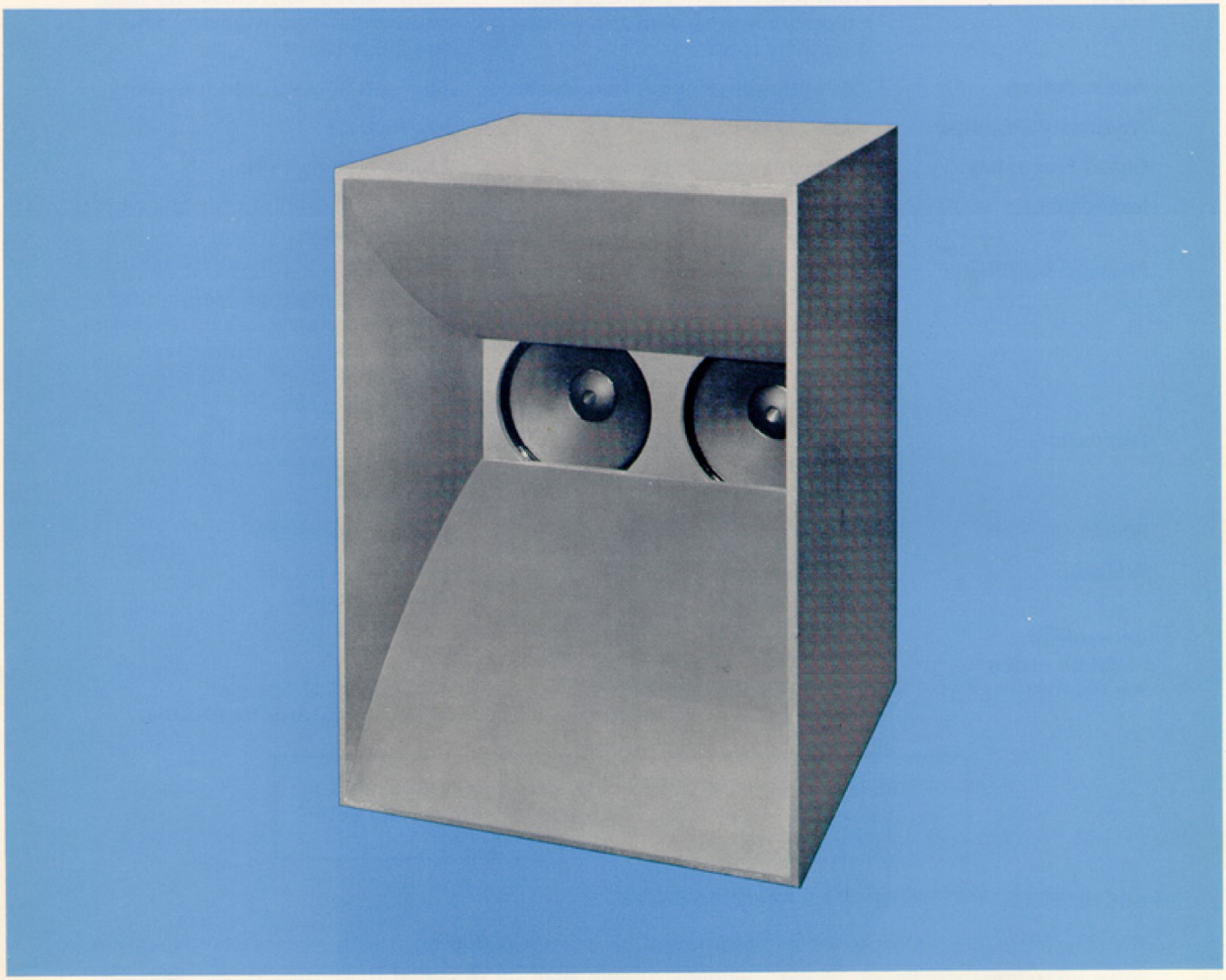
ALTEC
SOUND PRODUCTS DIVISION

815A
LOW-FREQUENCY HORN



DESCRIPTION

The ALTEC 815A Low-Frequency Horn is designed to provide increased directivity for low frequencies from 100 Hz to 1000 Hz. The cutoff frequency of approximately 75 Hz and the exponentially expanded horn mouth of 33″ x 44″ ensures uniform response to 100 Hz.

Rear chamber volume has been shaped to control loudspeaker displacement below 100 Hz to reduce the possibility of distortion arising from large low-frequency signals that might occur below the horn cutoff frequency.

The 815A horn accepts two ALTEC 421A or two ALTEC 515B LF Speakers. Either system is ideal for applications that require a maximum directivity factor throughout the frequency response range.

SPECIFICATIONS	With 421A Speaker	With 515B Speaker
Type:	Front-loaded horn enclosure with exponential expansion and a high directivity factor	Front-loaded horn enclosure with exponential expansion and a high directivity factor
Power Rating:	200 watts above cutoff frequency	200 watts above cutoff frequency
Frequency Response:	100-1000 Hz	100-1000 Hz
Cutoff Frequency:	Approximately 75 Hz	Approximately 75 Hz
Impedance:	4 ohms, parallel 16 ohms, series	8 ohms, parallel 32 ohms, series
Pressure Sensitivity:	104 dB SPL measured at 4′ on axis with 1 watt input of band-limited pink noise from 100-1000 Hz (Ref.: 0.0002 dyne/cm^2). Equal to EIA rating of 57 dB SPL at 30′ from 1 milliwatt.	105 dB SPL measured at 4′ on axis with 1 watt input of band-limited pink noise from 100-1000 Hz (Ref.: 0.0002 dyne/cm^2). Equal to EIA rating of 58 dB SPL at 30′ from 1 milliwatt.
Dimensions:	44″ H x 33″ W x 32½″ D (111.8 cm H x 83.8 cm W x 82.6 cm D)	44″ H x 33″ W x 32½″ D (111.8 cm H x 83.8 cm W x 82.6 cm D)
Finish:	Theatre gray enamel	Theatre gray enamel
Weight:	139 pounds (63 kg) without speakers	139 pounds (63 kg) without speakers
Accessories (must be ordered separately):	ALTEC 421A LF Speaker ALTEC 15067 Autotransformer	ALTEC 515B LF Speaker ALTEC 15067 Autotransformer

NOTE

A suitable 18 dB/octave high pass filter is recommended in conjunction with the 815A. The lowest recommended cutoff frequency is 70 Hz.

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The low-frequency loudspeaker enclosure shall be a front-loaded horn with exponential expansion and a high directivity factor. Its rear chamber volume shall be designed to control loudspeaker displacement below 100 Hz. It shall provide mounting for two 15″ low-frequency loudspeakers. The enclosure shall meet the following performance criteria. Frequency response, 100-1000 Hz. Cutoff frequency, approximately 75 Hz. Pressure sensitivity, _____ dB SPL when measured on axis at 4′ with 1 watt input of band-limited pink noise from 100-1000 Hz using two _____ loudspeakers. Construction, heavily braced ¾″ material and lined with acoustic damping material. Dimensions, 44″ H x 33″ W x 32½″ D. Weight, 139 pounds. Finish, gray enamel.

The low-frequency loudspeaker enclosure shall be the ALTEC Model 815A Low-Frequency Horn.

1515 SOUTH MANCHESTER AVENUE, ANAHEIM, CALIFORNIA 92803

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