

## ***425-8A Musical Instrument Loudspeaker***

**425-8A**



The ALTEC 425-8A Musical Instrument Loudspeaker is a rugged 10" loudspeaker designed for use in musical entertainment systems of moderate size and coverage area where true high-fidelity reproduction must be combined with high power output.

The 425-8A has a heavy permanent magnet, a structurally reinforced die-cast aluminum frame, a 3"-diameter voice coil of edge-wound aluminum ribbon, and exceptionally compliant cone suspension. It is sealed against dust and dirt.

The smooth response and excellent linearity of the 425-8A loudspeaker is achieved by strict adherence to precision design and manufacturing tolerances. Axial retention of the voice coil in a magnetic field, uniform over the full excursion, ensures clarity of music reproduction at high power levels. Low cone resonance, when coupled to a suitable enclosure, virtually eliminates all 'doubling' or self-generation of unwanted harmonic components.

The 425-8A has a continuous power rating of 75 watts and a frequency response from 60 to 8000 Hz. Its design provides high efficiency, high linearity, low distortion, wide range and optimum cone resonance.

**ALTEC**<sup>®</sup>

A DIVISION OF ALTEC CORPORATION

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# ALTEC 425-8A Loudspeaker

## SPECIFICATIONS

<p><b>Type:</b> Musical instrument loudspeaker</p> <p><b>Power Rating:</b> For sound system use with amplifiers having continuous power rating of up to 75 watts of program material</p> <p><b>Frequency Response:</b> 60 Hz to 8000 Hz (see Figure 1)</p> <p><b>Pressure Sensitivity:</b> 97 dB SPL measured at 4' on axis with 1 watt input of pink noise from 100 Hz to 10 kHz (Ref.: 0.0002 dyne/cm<sup>2</sup>). Equal to EIA rating of 50 dB SPL at 30' from 1 milliwatt input. 95 dB SPL measured at 4' on axis with 1 watt input of pink noise from 100 Hz to 1000 Hz (Ref.: 0.0002 dyne/cm<sup>2</sup>).</p> <p><b>Impedance:</b> 8 ohms (other impedances available in production quantities)</p> <p><b>Nominal Free-Air Cone Resonance:</b> 72 Hz</p> <p><b>Voice Coil Diameter:</b> 3"</p>	<p><b>Magnetic Assembly —</b></p> <p><b>Magnet Weight:</b> 2.4 pounds</p> <p><b>Assembly Weight:</b> 10.5 pounds</p> <p><b>Magnet Type:</b> Alnico V</p> <p><b>Flux Density:</b> 13,000 gauss</p> <p><b>Construction —</b></p> <p><b>Frame (Basket):</b> Structurally reinforced die-cast aluminum Molded fiber</p> <p><b>Cone:</b></p> <p><b>Cone Suspension:</b> High-compliance cloth surround with mechanical resistance</p> <p><b>Voice Coil:</b> Edge-wound aluminum ribbon</p> <p><b>Maximum Core Excursion:</b> 1/2"</p> <p><b>Diameter:</b> 10-3/8" (26.35 cm)</p> <p><b>Weight:</b> 12 pounds, 11 ounces (5.76 kg)</p> <p><b>Mounting Data —</b></p> <p><b>Mounting Hole Diameter:</b> 9" (may be either front or rear mounted)</p> <p><b>Mounting Bolt Centers:</b> 4 holes equally spaced on 9-5/8"-diameter circle</p> <p><b>Loudspeaker Depth:</b> 5-3/8" (13.65 cm)</p>
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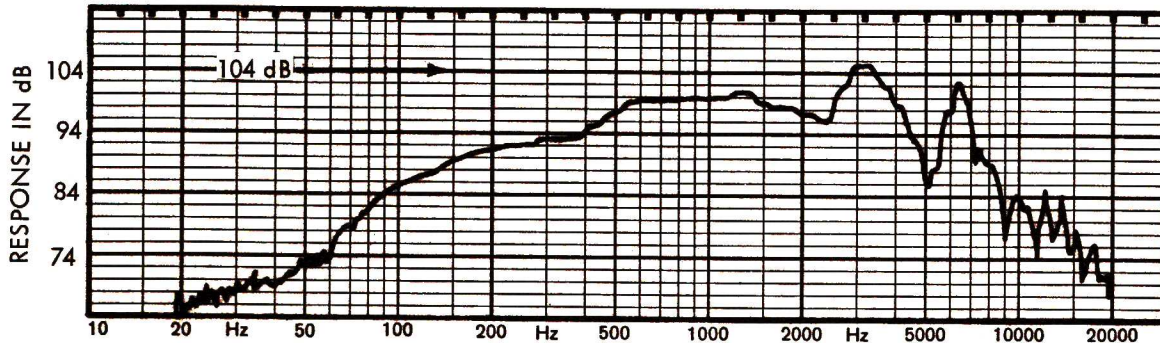


Figure 1. 425-8A Frequency Response Measured at 4' on Axis with 1 Watt Input

### ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The musical instrument loudspeaker shall have a maximum diameter of 10-3/8" and shall weigh 12 pounds, 11 ounces. It shall have a structurally reinforced die-cast aluminum frame which shall be rigid enough to permit front or rear mounting. The voice coil shall be 3" in diameter, of edge-wound aluminum ribbon, and shall operate in a magnetic gap having a flux density of 13,000 gauss. The loudspeaker shall have an Alnico V permanent magnet weighing not less than 2.4 pounds. The magnetic structure shall have a metal dust cover to protect it from dirt, iron particles and magnetic dust. The cone-surround area shall be of high-compliance cloth. The musical instrument loudspeaker shall meet the following performance criteria. Power rating, up to 75 watts of continuous program material. Frequency response, uniform from 60 to 8000 Hz when loudspeaker is mounted in suitable enclosure. Pressure sensitivity; 97 dB SPL when measured at 4' on axis with 1 watt input of pink noise from 100 Hz to 10 kHz; 95 dB SPL when measured at 4' on axis with 1 watt input of pink noise from 100 Hz to 1000 Hz (Ref.: 0.0002 dyne/cm<sup>2</sup>). Equivalent EIA rating, 50 dB SPL at 30' from 1 milliwatt input. Impedance, 8 ohms. Nominal free-air cone resonance, 72 Hz.

The musical instrument loudspeaker shall be the ALTEC Model 425-8A.