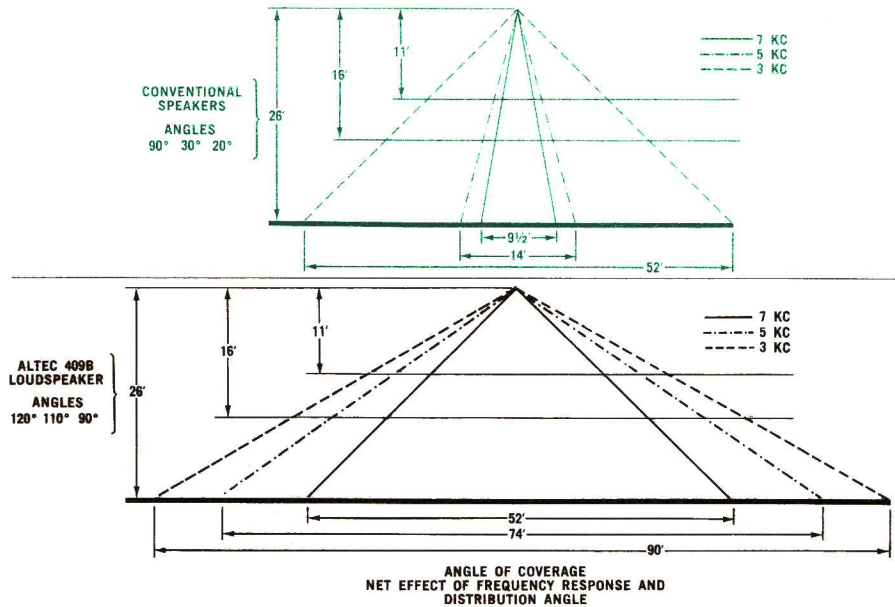


# 409B Loudspeaker

409B



## Features:

2-Way Speaker System  
Extremely Wide  
120° Distribution Angle  
Dual Drivers, Coaxially  
Mounted

High Sensitivity and  
Efficiency with  
Indox V Magnet  
Low Priced

50 to 14,000 Cycles  
Response

Full 16 Watts Rating  
Permanently Aligned  
Voice Coils

Extended Low Frequency  
Response

Built-In Crossover Network

Transformer Mounting  
Facilities

Thin Profile for Shallow  
Mounting

Outstanding Smoothness  
and Intelligibility

True 8-Inch Speaker

- EXTREMELY WIDE ANGLE SOUND DISTRIBUTION •
- HIGH QUALITY • ALL PAGING, PA, AND INTERCOM USAGE •
- BACKGROUND MUSIC • LOW COST SOUND MONITORING •

The Altec 409B Loudspeaker is a full-range, low distortion, coaxial transducer. Its extremely wide sound coverage angle, low price and compact shape make it ideal for use in indoor public address speaker systems, paging facilities, background music networks, or monitoring installations. Because the efficient engineering design incorporates a ceramic magnet of substantially greater weight than that of competitive units, the 409B requires less amplifier power to attain equivalent audio levels. In contrast to other rated "8-inch" coaxial-type speakers which use a smaller cone on a "pincushion" frame, the 409B has a true 8-inch speaker with a full size cone. The wide angle sound distribution of this speaker means larger areas may be covered with fewer units. Therefore the 409B affords a considerable saving in cost without sacrificing the high Altec standards of smoothness and intelligibility of response.

The 409B may be flush-mounted in any type of wall, ceiling or baffle installation. An Altec 25- or 70-volt transformer may be firmly attached to the loudspeaker frame.

The rugged construction of the 409B, both electrical and mechanical, assures long life and trouble-free performance. These features, found only in speakers of greater size and cost, combine to make the Altec 409B the first choice where quality and price are of prime consideration.



A Division of  Ling Altec, Inc.

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New York



# ALTEC 409B

## SPECIFICATIONS

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power:</b>                  | 16 watts                                                                                                                                 |
| <b>Frequency Response:</b>     | 50 to 14,000 cycles                                                                                                                      |
| <b>Pressure Sensitivity:</b>   | 97 db (SPL at 4 feet from 1 watt*)<br>109 db (SPL at 4 feet from full 16 watts)                                                          |
| <b>Impedance:</b>              | 8 ohms                                                                                                                                   |
| <b>Maximum Cone Resonance:</b> | (LF) 80 cycles, max.                                                                                                                     |
| <b>Voice Coil Diameter:</b>    | LF section — 1"<br>HF section — $\frac{9}{16}$ "                                                                                         |
| <b>Distribution:</b>           | 120°                                                                                                                                     |
| <b>Magnet:</b>                 | LF section — Ceramic Indox V<br>HF section — Alnico V                                                                                    |
| <b>Magnet Weights:</b>         | LF section — 10 oz.<br>HF section — 1.47 oz.                                                                                             |
| <b>Flux:</b>                   | LF section — 11,200 Gauss<br>HF section — 7,200 Gauss                                                                                    |
| <b>Crossover:</b>              | 2,000 cycles                                                                                                                             |
| <b>Terminals:</b>              | (2) Solder lugs                                                                                                                          |
| <b>Diameter:</b>               | 8 $\frac{1}{8}$ "                                                                                                                        |
| <b>Mounting Data:</b>          | Baffle opening — 7 $\frac{1}{8}$ "<br>Mounting bolt centers — 7 $\frac{11}{16}$ " (4 equally spaced at 90°)<br>Depth — 3 $\frac{1}{4}$ " |
| <b>Weight:</b>                 | 3 lbs.                                                                                                                                   |
| <b>Accessories:</b>            | See sheets on transformers and utility cabinets                                                                                          |

\*Equivalent to E.I.A. rating of 50 db at 30 feet from 1 milliwatt

## ARCHITECTS AND ENGINEERS SPECIFICATIONS

The loudspeaker shall be of the coaxial type (having electrically independent high and low frequency transducers) with an extremely wide angle of sound distribution. The low frequency cone shall have a diameter of 8 inches; the high frequency cone shall have a diameter of 3 inches. A high pass network shall be incorporated into the unit in order that the proper frequency selection shall be accomplished between the two drivers, allowing each to operate with maximum effectiveness. The crossover frequency shall be at 2,000 cycles.

The loudspeaker shall have a minimum sensitivity of 97 db (SPL at 4 feet from 1 watt) and 109 db (SPL at 4 feet from full 16 watts), measured on axis; the sensitivity, at full power 45 degrees off axis, shall be on the order of 105.5 db. The continuous power rating of the loudspeakers shall be 16 watts. The frequency response shall be uniform over the range of 50 to 14,000 cycles with a demonstrative dispersion angle of at least 120 degrees; free air resonance of the low frequency driver shall not exceed 80 cycles for maximal bass response.

The low frequency voice coil shall operate in a magnetic field of at least 11,200 Gauss, derived from a ceramic magnet of Indox V having a weight of 10 ounces. The high frequency voice coil shall operate in a magnetic field of at least 7,200 Gauss, derived from a magnet of Alnico V having a weight of 1.47 ounces. The loudspeaker shall be shallow in depth measurement, not to exceed 3 $\frac{1}{4}$ " with facilities on the speaker frame for mounting a 25- or 70-volt transformer of a power rating equal to that of a loudspeaker. External metal parts of the loudspeaker shall be protected against rust and corrosion.

Any loudspeaker not meeting these requirements shall not be acceptable under this specification.

The loudspeaker shall be Altec Lansing model 409B.

### 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.