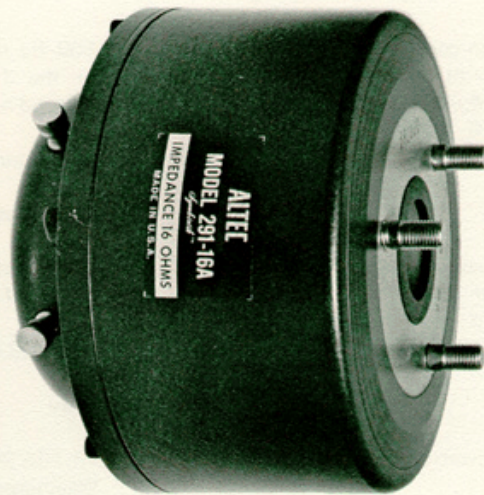


291-16A Driver Loudspeaker

291-16A



The ALTEC 291-16A High-Frequency Driver Loudspeaker has been designed for use in high-level music sound systems of the highest quality. It may be used with ALTEC multi-cellular horns or sectoral horns and will provide a smooth response from 500 Hz to 16,000 Hz. This wide range, when used in conjunction with ALTEC low-frequency loudspeakers, will provide full high fidelity reproduction for the largest theatre or auditorium. The 291-16A requires less wattage from its driving amplifier due to its high efficiency – combined with wide range, high power and the ruggedness of ALTEC's diaphragm and voice coil construction. These same drivers are used in the famous ALTEC 'Voice of the Theatre'[®] loudspeaker systems found in more than 12,000 of the world's finest motion picture theatres.

Like all ALTEC public address driver loudspeakers, the diaphragm and voice coil assembly of the 'theatre type' 291-16A can be replaced in the field by untrained personnel without the use of special tools. The high efficiency and smooth reproduction characteristics to the upper limits of human hearing make the 291-16A the obvious choice for all large sound systems where quality, full range and faithful reproduction are a requisite. The ALTEC 291-16A is ideally suited for announcing in large noisy indoor areas.

These factors, together with the all-important ALTEC criteria of engineering experience, combined to produce the 291-16A high-frequency driver loudspeakers of virtually matchless quality and limitless application.

ALTEC[®]

A DIVISION OF ALTEC CORPORATION

1515 S. Manchester Ave., Anaheim, Calif. 92803

ALTEC 291-16A

SPECIFICATIONS

| | | |
|------------------------------|--|--|
| Power Rating: | 40 watts (based on continuous operation with pink noise 500 Hz to 16,000 Hz and with ALTEC model N-500F dividing network) | 500 Hz multicellular horn or the 311-60 or 311-90 sectoral horns |
| Frequency Response: | 500 to 16,000 Hz | Magnet Weight: 3.4 pounds |
| Pressure Sensitivity: | 107 dB SPL w/1 watt input of pink noise from 500 to 3000 Hz, measured 4' from mouth of 30" horn (Ref.: 0.0002 dyne/cm ² for 1 watt input) | Flux Density: 16,000 gauss |
| Impedance: | 16 ohms | Dimensions: 6-1/2" (16.51 cm) Dia. 4-7/8" (12.38 cm) Depth |
| Voice Coil Diameter: | 2.8" | Weight: 20 lbs (9.09 kg) |
| Application: | HF Driver Loudspeaker for indoor use with wide-range 2-way studio 'Playback' systems | Finish: Gray |
| Protection: | N-500F dividing network and any ALTEC 300 or | Accessories: ALTEC 30546 - 45° Weatherproof Throat Adapter |
| | | Any ALTEC 300 or 500 Hz multicellular horn, or 311-60 or 311-90 sectoral horns |
| | | ALTEC N-500F Dividing Network |
| | | ALTEC 70.7V transformers |

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The high-frequency driver loudspeaker shall utilize a rugged diaphragm coupled to a voice coil that shall be edge-wound of aluminum ribbon and that shall be 2.8" in diameter. The voice coil gap shall have a flux density of at least 16,000 gauss, produced by an Alnico V magnet having a weight of at least 3.4 pounds. A machined phasing plug with two exponential acoustic slots shall serve as the pole piece and shall also be utilized to provide the proper phase relationship between the sound emanating from the center and edges of the diaphragm and voice coil assembly, thus ensuring maximum high-frequency reproduction while maintaining a smooth overall response. The entire diaphragm and voice coil assembly shall be field replaceable without requiring special tools or skills; this shall be interpreted to mean that the loudspeaker shall incorporate self-centering dowels to ensure proper spacing and alignment of the diaphragm and voice coil assembly.

The HF driver loudspeaker shall produce a sound pressure level of at least 107 dB with 1 watt input and 123 dB with 40 watts input at a distance of 4' from the mouth of a 30" trumpet when pink noise from 500 to 3000 Hz is applied. The frequency response of the HF driver shall be uniform over the range of 500 to 16,000 Hz with the ALTEC 311-60 or 311-90 sectoral horn and N-500F dividing network. The HF driver loudspeaker shall be capable of handling 40 watts based on continuous operation with pink noise 500-16,000 Hz and with an ALTEC N-500F Dividing Network. Impedance shall be 16 ohms.

The HF driver loudspeaker shall be ALTEC Model 291-16A.