

## 290-4G COMPRESSION DRIVER LOUDSPEAKER



### DESCRIPTION

The Altec 290-4G Compression Driver Loudspeaker has exceptionally high power-handling capacity and efficiency. The 290-4G, designed primarily for outdoor use with any of the Altec multicellular horns, may be used for public address speech reinforcement in large outdoor systems such as ball parks, race tracks and stadiums, and is ideal for voice warning systems.

Improvements in top plate and phasing plug designs allow the 290-4G to exhibit a more uniform and extended response characteristic over the 500-7000 Hz band, and 2 dB greater pressure sensitivity than provided by earlier 290 models. The 290-4G provides a minimum impedance of 4 ohms.

The diaphragm/voice coil assembly of the 290-4G can be replaced in the field by untrained

personnel without the use of special tools. Adjustable dowel pins allow each voice coil to be precisely centered in the voice coil gap, which has a flux density of 18,500 gauss derived from a 6.49-pound Alnico V magnet. The weatherproof cover on the rear of the speaker is drilled and tapped to house the Altec 15045A matching transformer for 70.7V line operation. A 4-foot cable, stripped and tinned at one end, enters the rear of the cover through a waterproof sealing gland, further ensuring complete weather protection.

When the 290-4G is used in large systems, rather than a number of speakers having lower sensitivity and/or less power capacity, the results are higher quality and intelligibility, and a reduction in overall system cost and upkeep.

## SPECIFICATIONS

<b>Power Rating:</b>	100 watts of band-limited pink noise (300-20,000 Hz) when mounted on Altec 300 or 500 Hz horn	<b>Construction — (cont'd.)</b>	
<b>Frequency Response:</b>	300-7000 Hz	<b>Diaphragm:</b>	Phenolic with phenolic roll-type suspension
<b>Pressure Sensitivity:</b>	106.5 dB SPL measured at 4' from mouth of Altec 311-90 horn with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm <sup>2</sup> ). See appropriate Altec horn catalog sheets for specific pressure sensitivity when driver is combined with other horns.	<b>Voice Coil:</b>	2.8" diameter of edge-wound copper ribbon
<b>Minimum Impedance:</b>	4 ohms	<b>Dimensions:</b>	7.1" (17.9 cm) diameter 8.5" (21.8 cm) depth, less mounting studs
<b>Construction —</b>		<b>Weight:</b>	32 pounds (14.5 kg), without matching 70.7V transformer
<b>Magnet:</b>	6.49-pound Alnico V, 18,500 gauss flux density	<b>Finish:</b>	Gray "Hammertone" enamel
<b>Magnetic Structure Weight:</b>	28 pounds	<b>Mounting Data:</b>	Three 3/8"-24 x 1" studs, 120° apart on 3.25" centers
		<b>Accessories (must be ordered separately):</b>	Altec 30546 — 45° Weatherproof Throat Adapter Altec 15045A — 100 Watt 70.7V Transformer

## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The compression driver loudspeaker shall meet the following performance criteria. Power rating, 100 watts of band-limited pink noise (300-20,000 Hz). Frequency response, uniform from 300 to 7000 Hz. Pressure sensitivity, 106.5 dB SPL when measured at 4' on axis from mouth of Altec 311-90 horn with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm<sup>2</sup>). Minimum impedance, 4 ohms. The voice coil shall be 2.8" in diameter, of edge-wound copper ribbon, and shall operate in a magnetic gap having a flux density of 18,500 gauss derived from a 6.49-pound Alnico V magnet. The diaphragm shall be phenolic, and shall have phenolic roll-type suspension. Provision shall be incorporated to permit mounting an Altec 70.7V matching transformer on the speaker and the entire assembly shall be enclosed in a weatherproofed housing. Each driver loudspeaker shall be provided with a 4' cable, stripped and tinned at one end, and shall enter the rear of the cover through a waterproof sealing gland, providing complete protection against the entrance of water, dirt and dust. A machined phasing plug with 3 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. The entire diaphragm and voice coil assembly shall be field replaceable without requiring special tools or skills; adjustable dowel pins shall allow each voice coil to be precisely centered in the voice coil gap.

The compression driver loudspeaker shall be the Altec Model 290-4G.

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