

329A Sectoral Horn Assembly

329A



FOR INDOOR OR OUTDOOR USE IN:

FACTORIES • AIRPORTS • ARENAS • STADIUMS • SHOPPING CENTERS • TWO-WAY
LOUDSPEAKER SYSTEMS • THEATRES • AUDITORIUMS • SCHOOLS • CHURCHES • STUDIOS
CONCERT HALLS • HOTELS • NIGHTCLUBS • DISCOTHEQUES • WIDE RANGE MUSIC SYSTEMS

The ALTEC 329A Sectoral Horn Assembly is an inexpensive and compact means of uniformly controlling the sound projection angle while maintaining excellent reproduction in the middle and high frequencies.

Features:

Constant Horizontal Beam Width with Exponential Expansion and Controlled Distribution Angle

A characteristic of a sectoral horn is that the horizontal beam width remains constant throughout the middle and high frequency range. In other types of horns, the beam becomes progressively sharper as the frequency increases until, at the higher frequencies, only a narrow area may be adequately covered. Exponential expansion provides clear sound reproduction with minimum distortion. Because the dispersion pattern is carefully controlled by the sectoral expansion of the ALTEC 329A Sectoral Horn Assembly, the full sound spectrum may be directed exactly where it is needed.

No Spray Effect or Horizontal Diffraction

Spray effect or horizontal diffraction, usually found in folded or reentrant horns, is completely eliminated.

Complete Freedom from Resonance

Horn resonance or ringing is effectively nullified by the use of two isolating/damping bars which are specially adjusted to prevent the bell effect of the horn from resonating in an objectionable manner.

Adequate Loading and Power Driving Capability

The cutoff frequency of the 329A is 220 Hz. which provides adequate loading and unit power driving capability from 300 Hz.

May Be Used with Any of 4 Driver Models in Single or Double Driver Configuration

The ALTEC 329A Sectoral Horn Assembly may be used with the ALTEC 288D, 290E, 291-16A or 730A Driver Loudspeaker models in a single entry/single driver or in a double entry/double driver configuration. A single entry or double entry throat may be selected to suit specific sound system requirements. This great versatility makes the 329A applicable to nearly every type of sound system.

Weatherproof Cast Aluminum — Rugged Construction in Every Detail

The 329A is made of light weight cast aluminum and is carefully designed to assure complete freedom from resonance and ring. The sturdy weatherproof construction makes it ideal for paging systems in or around factories, airports, railroad and bus stations, shopping centers or other outdoor applications such as military bases or athletic fields. It may be used singly as an excellent projector for paging and sound systems, or in conjunction with low-frequency speakers and it can serve as an outstanding high-frequency component of a large two-way speaker system.

Easily Assembled

Assembly is accomplished by simply bolting the horn, selected throat adapter and selected driver loudspeaker together as shown in Figure 1.

ALTEC

A DIVISION OF ALTEC CORPORATION

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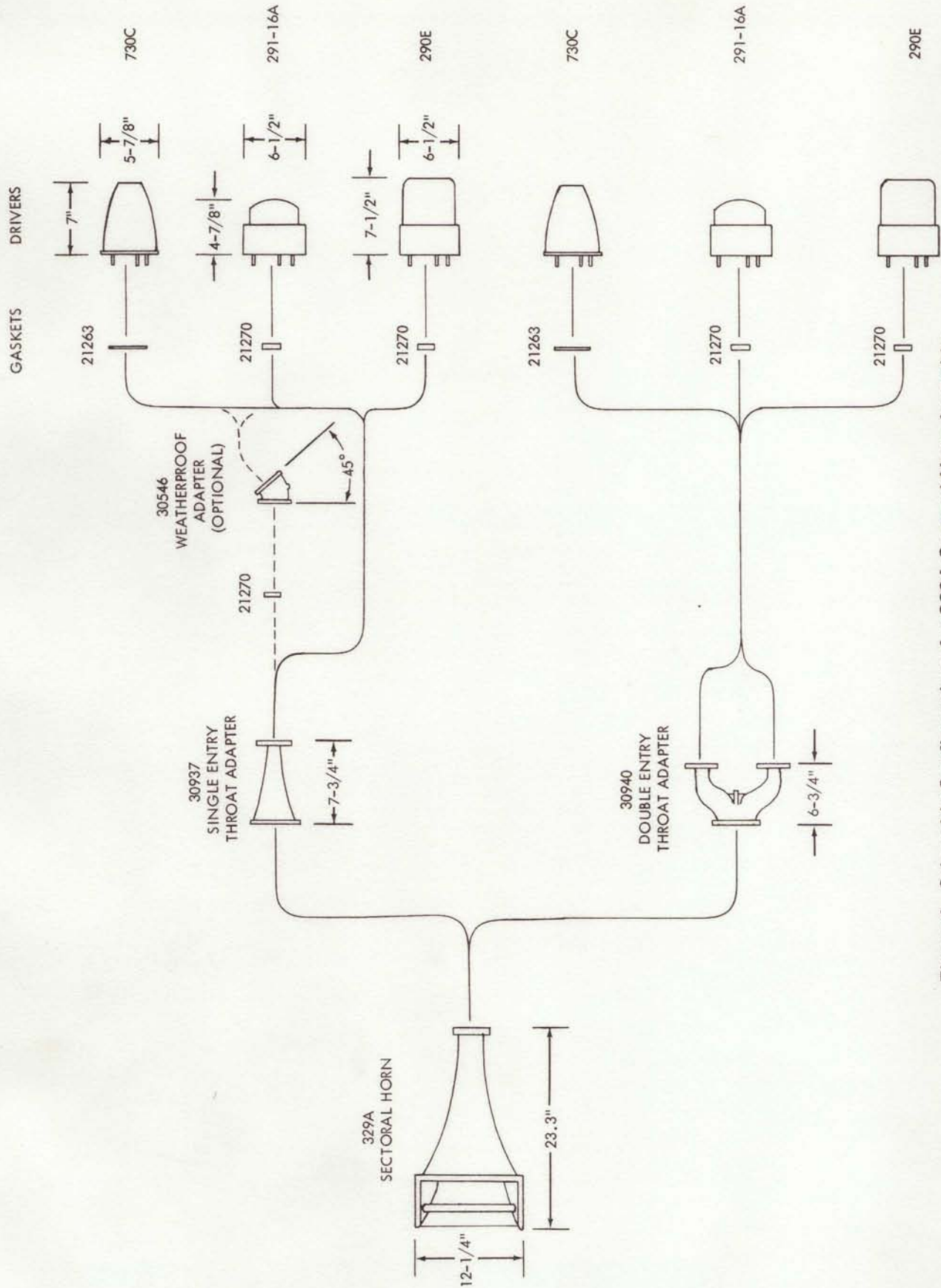


Figure 1. Selectable Configurations for 329A Sectoral Horn Assembly

ALTEC 329A

SPECIFICATIONS

Distribution Angles:	90° horizontal x 40° vertical
Cutoff Frequency:	220 Hz
Pressure Sensitivity:	107.0 dB SPL with Model 730C Driver* 109.0 dB SPL with Model 291-16A Driver* 105.5 dB SPL with Model 290E Driver* 89.5 dB SPL with Model 730C Driver** 91.5 dB SPL with Model 291-16A Driver** 88.0 dB SPL with Model 290E Driver**
Dimensions:	12-1/4" H x 32-3/4" W x 28" D (including single entry throat adapter) 12-1/4" H x 32-3/4" W x 27" D (including double entry throat adapter)
Weight:	24.5 pounds (including single entry throat adapter) 25.5 pounds (including double entry throat adapter)
Throat Adapters (Required):	Single entry ALTEC Model 30937 (P/N 10-02-03-154) Double entry ALTEC Model 30940 (P/N 10-02-03-155)
Weatherproof Adapter (Optional):	45° angle ALTEC Model 30546 (P/N 10-02-03-060)
Throat Adapter Gaskets:	ALTEC Model 21263 for ALTEC driver Model 730C 4" O.D. x 1" I.D. x 0.93" Thick ALTEC Model 21270 for ALTEC driver Models 290E and 291-16A 2" O.D. x 1.406" I.D. x 0.125" Thick

* Measured on axis at 4 feet with 1 watt input of pink noise from 500-3000 Hz
(Ref.: 0.0002 dyne/cm²)

** Measured on axis at 30 feet with 1 watt input of pink noise from 500-3000 Hz
(Ref.: 0.0002 dyne/cm²)

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker horn shall be of the straight sectoral type with exponential expansion and straight throat. Folded or reentrant type horns shall be unacceptable under these specifications because phase cancellation occurs in the bends of the air columns in such horns. The loudspeaker horn shall be constructed of heavy cast aluminum with two isolating/damping bars installed in the horn mouth. These bars shall prevent the bell effect of the horn from resonating. A separate single or double entry throat adapter of heavy cast aluminum shall be included as an integral part of the horn assembly. (The horn shall not function without a throat adapter.) Each type of throat adapter shall be capable of mating with a 45° weatherproof adapter to protect the associated driver unit from damage that may be caused by accumulation of water or foreign particles. This adapter shall be optional. The driver end of all adapters shall be capable of mating with any driver unit (specified elsewhere).

The loudspeaker horn shall meet the following performance criteria. Distribution angle; 90° horizontal x 40° vertical. Cutoff frequency, 220 Hz. Pressure sensitivity; 107.0 dB SPL, 109.0 dB SPL or 105.0 dB SPL (depending on compression-type driver model used) when measured on axis at 4' with 1 watt input of pink noise from 500-3000 Hz; 89.5 dB SPL, 91.5 dB SPL or 88.0 dB SPL (depending on compression-type driver model used) when measured on axis at 30' with 1 watt input of pink noise from 500-3000 Hz. (Ref.: 0.0002 dyne/cm²).

When equipped with a single entry throat adapter, the dimensions of the loudspeaker horn assembly shall be 12-1/4" high by 32-3/4" wide by 28" deep and the weight of the assembly shall be not greater than 24.5 pounds. When equipped with a double entry throat adapter, the dimensions of the loudspeaker horn assembly shall be 12-1/4" high by 32-3/4" wide by 27" deep and the weight of the assembly shall be not greater than 25.5 pounds. (Dimensions and weights specified herein do not include those of a 45° weatherproof adapter and/or driver unit.)

The loudspeaker horn assembly shall be finished in dark gray enamel.

The loudspeaker horn assembly shall be the ALTEC Model 329A.

The single entry throat adapter shall be the ALTEC Model 30937.

The double entry throat adapter shall be the ALTEC Model 30940.

The optional weatherproof adapter shall be the ALTEC Model 20546.