

DESCRIPTION

The new 1828R Electro-Voice reentrant driver is the result of the most modern high fidelity engineering techniques applied to public address speakers. The characteristics of this driver were chosen to accommodate the majority of sound jobs where moderate power handling, high efficiency, and wide range must be combined. Applications include gymnasiums, auditoriums, parks, playgrounds, factories, race tracks, fairs, transportation terminals, parking lots, indoor or outdoor meetings, etc. "Peaked" response is eliminated for minimum listening fatigue and greatest articulation.

APPLICATIONS

Particularly recommended for highest quality are the E-V AR150, FR150, and HC400 reentrant horns. These horns feature less distortion and wider useful range than any other type. In addition, the coverage angle is uniquely flexible when difficult sound problems are encountered. The exclusive E-V ring reflector in the round aluminum AR150 extends the useful high-frequency range for superior voice articulation and musical balance. The FR150 features a fiberglass horn of rectangular shape with medium angle coverage. The HC400 provides maximum economy and efficiency for small horn paging applications.

The rugged, weather-resistant phenolic diaphragm in the 1828 series is virtually indestructible in even the most stringent service. The entire voice coil and diaphragm is held to absolute concentricity through exclusive E-V design and construction technique utilizing automatic thermal compensation in voice coil assembly plus the most advanced manufacturing processes.

FEATURES

- For use on any reentrant horn
- Smooth response reduces feedback, adds to intelligibility.
- Wide range for better music reproduction
- Rugged die-cast housing.

SPECIFICATIONS

Frequency response	
AR150:	190 - 8 kc
FR150:	190 - 8 kc
Voice coil impedance:	8 ohms
Power handling	
Sine wave:	20 watts
Program:	30 watts
Adjusted program:*	40 watts
Sound pressure level:**	
Horn type -	AR150 127 db
	FR150 121 db
	HC400 123 db
Dimensions	
Diameter:	4-1/32"
O.A. length:	2-13/16"
Net weight:	4-3/4 lb.
Finish:	Mesa Tan baked enamel
Thread size:	1-3/8" -18
Terminal polarity:	T1 - positive
	T2 - negative

*With capacitor to limit diaphragm excursion below low-frequency horn cutoff.

**At 4-foot on axis with 1 Hz sweep from 750 to 1250 Hz at 30 watts.

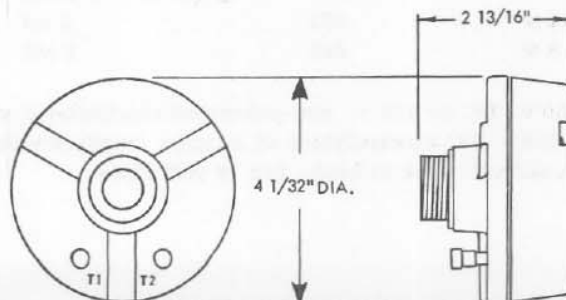


Figure 1-Dimensions

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The driver shall have a uniform response of 190-8,000 Hz when mounted in an AR150 or FR150 horn. The sound pressure level at 4' on axis with a 1 Hz sweep from 750 to 1250 Hz at 30 watts shall be 127 db when used with an AR150. (121 db when used with FR150.) The power handling capacity shall be 30 watts of program material. The nominal voice coil impedance shall be 8 ohms.

Diaphragm shall be linen-base molded phenolic and voice coil shall be 1-1/2 inch diameter. Field replacement shall be possible without special tools.

The housing shall be die-cast aluminum and shall be completely weatherproof. Spring-loaded terminals shall be phased. The diameter of the driver shall be 4-1/32" and the length 2-13/16". Net weight shall be 4-3/4 lb. Finish shall be Mesa Tan baked enamel. Electro-Voice Model 1828R is specified.

LOW FREQUENCY DRIVER PROTECTION

When frequencies below the low-frequency cut-off for the horn assembly are fed to the driver, excessive current may be drawn by the driver. For protection of driver, amplifier, and transformer (if driver with built-in transformer is used), capacitor(s) in series with driver or transformer primary are recommended. The following table indicates recommended values. The values shown are for 200 cycles per second. Values for other frequencies can be determined by using the formula:

$$C = C_{200} \left(\frac{200}{f} \right)$$

C_{200} = Values shown in the following table

f = New Frequency

For drivers without transformers:

8 ohms driver, 25 wv - 100 mf

Series capacitors for 200 Hz and below--
driver protection:

Power	70 volt lines	
	Impedance	Capacitance
60 w	83	10 mf
30 w	166	5 mf
15 w	333	2 mf
8 w	625	1 mf

150 v. DC or 150 v. non-polarized electrolytic, or 2 150 v. DC electrolytics of 2 times required value in series, back to back, for 70 volt lines.

WARRANTY (Limited) — Electro-Voice Sound Reinforcement & Public Address Loudspeakers and accessories are guaranteed for five years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish or appearance items or malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For correct shipping address and instructions on return of Electro-Voice products for repair and locations of authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone: 616/695-6831).

Electro-Voice also maintains complete facilities for non-warranty service.