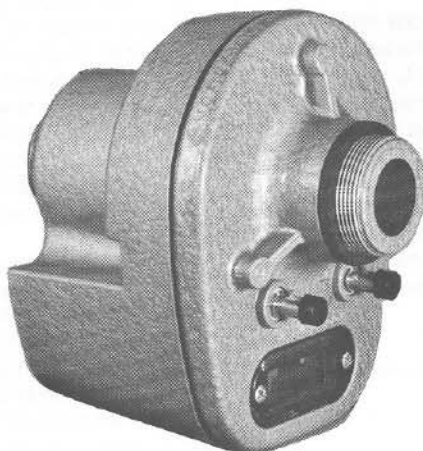


Electro-Voice®
a gulton company



Model 1828T Convertible Driver

SPECIFICATIONS

Frequency Response,

AC100 and FC100:

150-10 kc

Voice Coil Impedance:

8 ohms

Transformer Taps:

30 watts at 167 ohms

15 watts at 333 ohms

8 watts at 667 ohms

4 watts at 1337 ohms

Power Handling,

Sine Wave:

20 watts

Program:

30 watts

Adjusted Program:**

40 watts

EIA Sensitivity Rating:

57 dB (w FC100)

Sound Pressure Level,**

Horn Type - AR150:

127 dB

FR150:

121 dB

FC100:

120 dB

AC100:

124 dB

HC400:

123 dB

Dimensions:

127 mm (5.0 in.) height

101.6 mm (4.0 in.) width

133.3 mm (5.25 in.) depth

Net Weight:

2.26 kg (5.0 lb)

Finish:

Mesa Tan baked enamel

Thread Size,

Front:

1 1/8" — 18

Rear:

1 1/8" — 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 cps sweep from 750 to 1250 cps at 30 watts.

DESCRIPTION

The new 1828T Electro-Voice convertible 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 for this driver include gymnasiums, auditoriums, parks, playgrounds, factories, race tracks, fairs, transportation terminals, parking lots, indoor or outdoor meetings, etc. The tonal balance allows good musical reproduction necessary for clear, crisp voice projection. "Peaked" response is eliminated for minimum listening fatigue and greatest articulation. Both high- and low-frequency range is limited only by the horn design.

APPLICATIONS

Particularly recommended for highest quality are the EV AC100 and FC100 compound 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. Where maximum economy is desired, the Electro-Voice model AR150, FR150, or HC400 reentrant horns are recommended. The exclusive EV 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 EV design and construction technique utilizing automatic thermal compensation in voice coil assembly plus the most advanced manufacturing processes.

INSTALLATION

Determine horn type to be used with this driver. Remove red plastic protective cap from front of driver. When used with compound horns, the threaded rear cap and plastic foam plug in the rear port should be removed. Connect only the low frequency (large horn) section of a compound horn to the rear opening of this driver. Connect the high frequency (small horn) section of a compound horn to the front opening of the driver. Tighten hand-tight so that the rubber gaskets are slightly compressed. Threads on both front and rear openings are 1 1/8" — 18.

When used with all other types of horns the threaded plastic cap and foam plug on the rear of the driver should be left on and firmly hand-tightened. The front opening of the driver should be screwed into the full-range horn so that the rubber gasket is depressed.

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 capacitor(s) in series with driver, or transformer primary, are recommended. The following tables indicate recommended values. Values shown are for 200 cps. 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 tables

f = New Frequency

For drivers without transformers:
8 ohm driver, 25 wv - 100 mf
16 ohm driver, 50 wv - 50 mf

Series capacitors for 200 cps and below driver protection:

70-volt lines			25-volt lines		
60 w	83	10 mf	10.4	80 mf	
30 w	166	5 mf	20.8	40 mf	
15 w	333	2 mf	41.6	20 mf	
8 w	625	1 mf	78	10 mf	
4 w	1250	0.5 mf	156	5 mf	
2 w	2500	0.25 mf	312	2 mf	
1 w	5000	0.1 mf	625	1 mf	
1/2 w	10000	0.05 mf	1250	.5 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.

50 v. DC or 50 v. non polarized electrolytic, or 2 25 v. DC electrolytics of 2 times required value in series, back to back, for 25-volt lines.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The driver shall have a uniform response of (B) when mounted in (A) horn. The sound pressure level at 4' on axis with 1 cps sweep from 750 to 1250 cps at 30 watts shall be (C) dB when mounted in (A) horn. The power handling capacity shall be 30 watts of program material.

The transformer shall have taps marked in watts for 70.7-volt line operation. Taps shall be 30, 15, 8, and 4 watts and shall be 167, 333, 667, and 1337 ohms respectively. Insertion loss shall not exceed 1 dB.

Driver shall be of the convertible compound type having two separate sound openings. The front opening shall be suitable for frequencies above 1000 cps when coupled to the high-frequency section of a compound horn or for full range when coupled to any other type of horn. The rear sound opening shall be suitable for frequencies below 1000 cps when coupled to the low-frequency section of a compound horn. Rear sound opening shall have a threaded cap and plastic damping plug. Diaphragm shall be linen-base molded phenolic and voice coil shall be 1 1/2 inches diameter. Field replacement shall be possible without special tools.

The housing shall be die-cast and shall be completely weatherproof. Spring-loaded terminals shall be phased. The dimensions of the driver shall be 127 mm (5.0 in.) h x 101.6 mm (4.0 in.) w x 133.3 mm (5.25 in.) d. Net weight shall be 2.26 kg (5.0 lbs). The finish shall be Mesa Tan baked enamel. Electro-Voice Model 1828T is specified.

A	B	C
AR150	150-10000	127 dB
FR150	150-10000	121 dB
HC400	250-10000	123 dB
FC100	150-10000	120 dB
AC100	150-10000	124 dB

WARRANTY (Limited)

Electro-Voice Accessories are guaranteed for one year 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 extend to finish, appearance items or malfunction due to abuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. Repair by other than Electro-Voice or its authorized warranty service agencies will void this guarantee. A list of authorized service centers is available from Electro-Voice, Inc., 600 Cecil Street, Buchanan, MI 49107 (AC/616-695-6831); Electro-Voice, Inc., 3810 148th Avenue N.E., Redmond, WA 98052 (AC/206-881-9555); and/or Electro-Voice West, 8234 Doe Avenue, Visalia, CA 93291 (AC/209-651-7777). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.

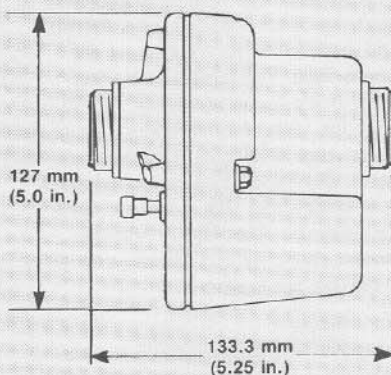
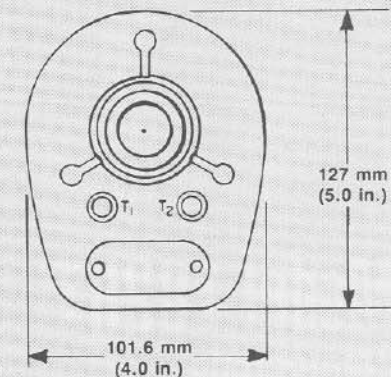


FIGURE 1 — Dimensions



ELECTRO-VOICE, INC., 600 Cecil Street, Buchanan, Michigan 49107

MANUFACTURING PLANTS AT ■ BUCHANAN, MI ■ NEWPORT, TN ■ SEVIERVILLE, TN ■ REDMOND, WA ■ GANANOQUE, ONT
Gulton Industries, Inc. 1985 ■ Litho In U.S.A. Part Number 531434-534

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