

1824S

Heavy Duty Driver



General Product Description

The 1824S is a heavy-duty driver designed for use in fixed or mobile siren warning systems incorporating PA horns.

The driver uses a rugged, weather-resistant phenolic diaphragm, 2-inch diameter voice coil with specially insulated copper wire, and a strontium ferrite magnet structure.

The entire voice coil and diaphragm assembly is held to absolute concentricity by use of specialized techniques in construction.

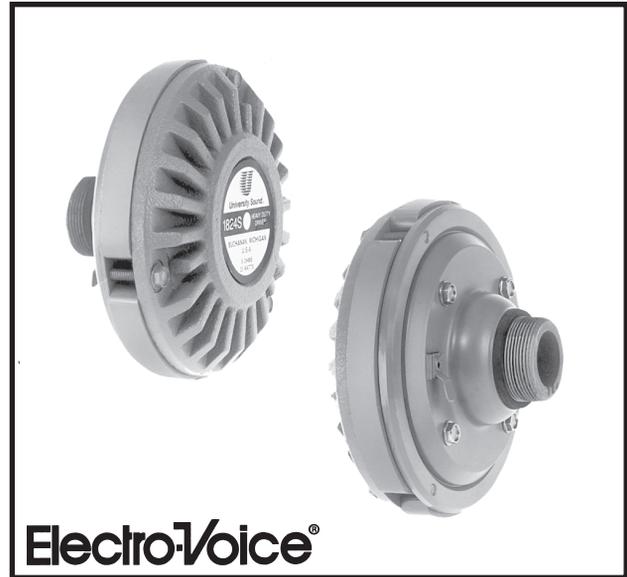
Automotive-type terminals are used, and mating connectors provided for making electrical connection to the 1824S.

Architects' and Engineers' Specifications

The loudspeaker shall be of the compression-driver type having a rugged phenolic diaphragm and a high-temperature rated 2.0-inch diameter voice coil.

The loudspeaker shall exhibit essentially flat power response from 300 to 3,000 Hz with a smoothly rolled-off response beyond. Its sensitivity, when mounted on a University Sound Cobreflex III horn, will be 107 dB (1 W/1 m) with a 300 to 3,000 Hz pink noise signal applied.

The loudspeaker shall be capable of handling a 75 watt, 500 to 5,000 Hz pink noise signal with a 6 dB crest factor for a period of eight hours.



The loudspeaker shall have a diameter of 13.2 cm (5.2 in.) and a depth of 7.9 cm (3.1 in.). It shall have a 2.2 cm (0.9 in.) throat opening with a 1 3/8 inch-18 thread for mounting.

The loudspeaker shall be the 1824S which weighs no more than 2.9 kg (6.4 lb) and has a nominal impedance of 8 ohms.

Specifications:

Frequency Response:

..... 300-3,000 Hz \pm 5 dB (see Figure 2)

Power Handling, 8 Hours, 6 dB Crest Factor:

..... 75 watts: (500-5,000 Hz pink noise)

Impedance, Nominal: 8 ohms

Minimum: 7 ohms (Cobreflex III horn)

Sound Pressure Level at 1 Meter, 1 Watt Input Averaged, Pink Noise Band-Limited from 300-3,000 Hz:

..... 107 dB (Cobreflex III horn)

Voice Coil Diameter:

..... 5.08 cm (2.0 in.)

Magnet Weight:

..... 0.6 kg (1.4 lb)

Magnet Material:

..... Strontium ferrite

Flux Density:

..... 1.25 Tesla

Construction:

Diecast front cover with thermal black finish

Mechanical Construction of Driver:

1-3/8"-18 x 7/8"- long thread for direct connection to PA or reentrant horns.

Dimensions,

Diameter: 13.2 cm (5.2 in.)

Depth: 7.9 cm (3.1 in.)

Net Weight:

..... 2.9 kg (6.4 lb)

Shipping Weight:

..... 3.2 kg (7.0 lb)

Recommended Horns:

Cobreflex IIB Cobreflex III

Installation

Remove the plastic cap from the threaded throat of the driver and screw driver into the horn until firmly seated.

Install the horn/driver assembly in intended location, referring to the instructions provided with horn.

A rear driver bolt is provided for attachment. Do not use a longer size than the one supplied.

Attach mating terminals to lead wire and connect to driver terminals or solder lead wire directly to the driver terminals.

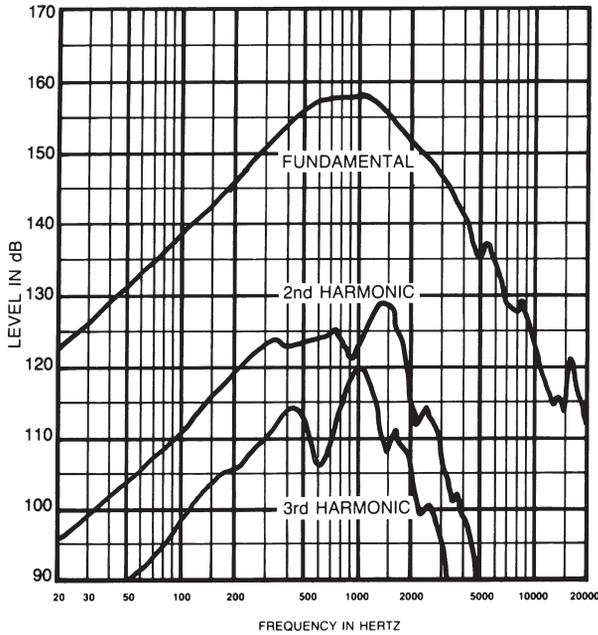


Figure 1.

**Distortion Response - Plane Wave Tube (1 inch)
(7.5 watt input)**

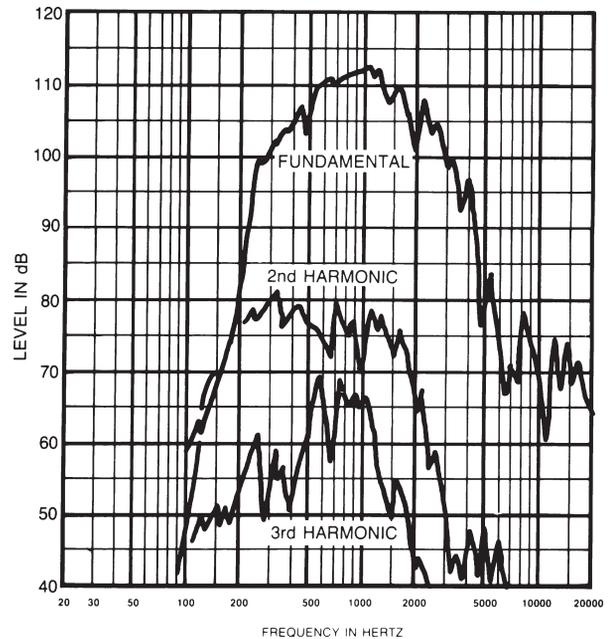


Figure 2.

**Distortion Response - Cobreflex III Horn
(1 watt / 1 meter)**

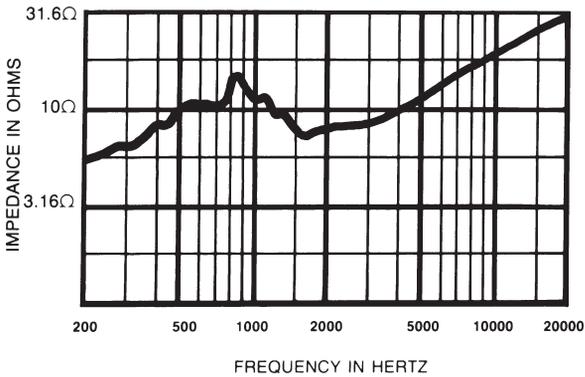


Figure 3.

**Impedance Response - Plane Wave Tube
(1 inch)**

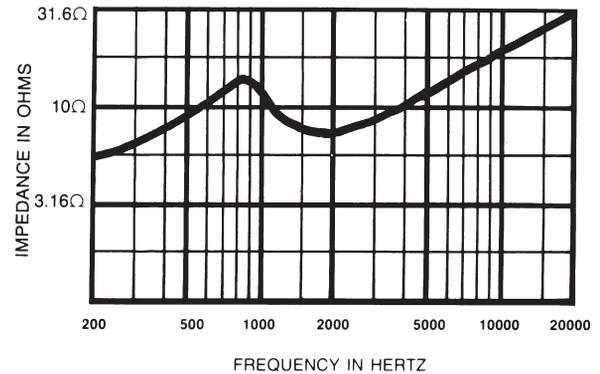


Figure 4.

Impedance Response - Cobreflex III Horn

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