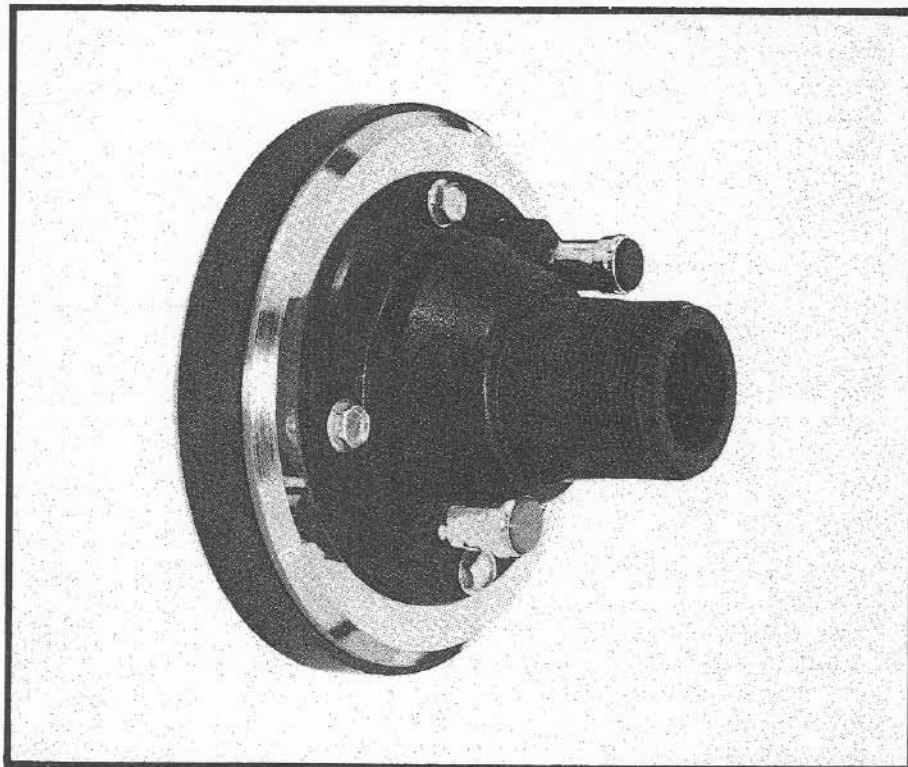




Electro-Voice®
a gulton company

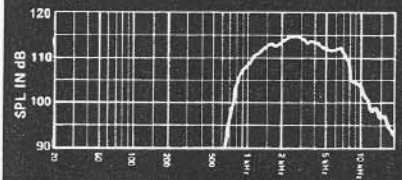


FIGURE 1
Axial Frequency Response 1 Watt/1 Meter
Curved on HT94 Horn

Model DH2305

High-Frequency Reproducer

SPECIFICATIONS:

The following specifications are in accordance with or exceed the "AES Draft Recommended Practice for Specification of Loudspeaker Components used in Professional Sound Reinforcement Systems — 1983."

Power Frequency Response:

- 1 kHz to 23 kHz (essentially flat)
- 1 kHz to 7 kHz with 12 dB per octave rolloff to 23 kHz, rapid rolloff beyond).

Nominal Impedance:

8 ohms

Minimum Impedance:

- 7 ohms at 10 kHz
- 5 ohms at 17 kHz (with crossover and equalizer)

Nominal DC Resistance:

5 ohms

Long-Term Average Power Capacity

(24 Hours):

- 20 watts
- (12.6 volts RMS applied to nominal 8-ohm load, pink noise signal with 10 dB crest factor band limited to 3 kHz to 30 kHz, HT94 horn.)

Nominal Efficiency:

- 25%
- (band limited pink noise input 1 kHz — 4kHz, assuming 8-ohm driver impedance)

Maximum Long-Term Acoustic

Power Output (24 Hours):

5 watts

Recommended Minimum Crossover

Frequency:

3000 Hz, 12 dB octave minimum

Sound Pressure Level at 1 Meter,

1 Watt Input:

113 dB, HT94 horn

Voice Coil Diameter:

3.17 cm (1.25 in.)

Voice Coil Construction:

Polyimide insulated aluminum wire on a polyimide form.

Diaphragm Construction:

Titanium integral half-roll surround diaphragm

Electrical Connection:

The DH2305 is fitted with a pair of chrome-plated connectors with color-coded ends. Electrical connection is made by pushing down, inserting wire completely through the rectangular slot and releasing pressure. One conductor of #9 AWG stranded, #8 AWG solid, a pair of twisted #15 AWG stranded or a pair of #14 AWG solid conductors will fit. A positive electrical signal applied to the red (+) terminal will displace the diaphragm away from the magnet, thus producing a positive acoustic pressure.

Mechanical Connection:

Screw-on:

A standard 1 3/8" x 5/8" long thread allows the DH2305 to be mounted on any standard driver screw mount.

Dimensions: (see Figure 2)

11.4 cm (4.5 in.) overall diameter

8.9 cm (3.5 in.) overall depth

Net Weight:

1.8 kg (3.9 lb)

Shipping Weight:

1.9 kg (4.3 lb)

DESCRIPTION

The Electro-Voice DH2305 is a high-performance, compression-type-high-frequency reproducer, for use as the high-frequency component in professional three- and four-way sound reinforcement systems. Use above 3000 Hz is recommended. Exceptional high-frequency performance is realized through a design which includes:

- 1) A specially formed lightweight titanium diaphragm and low-mass voice coil.
- 2) A unique glass-filled polycarbonate, convex-drive, distributed-source phase plug. This advanced design is akin to modern fluidic amplifier circuitry and is Electro-Voice's exclusive Time Path™ phase equalizer.
- 3) An optimum magnetic motor design, leading to a compact but sensible size and weight.
- 4) Excellent heat transfer via magnetic fluid cooling.

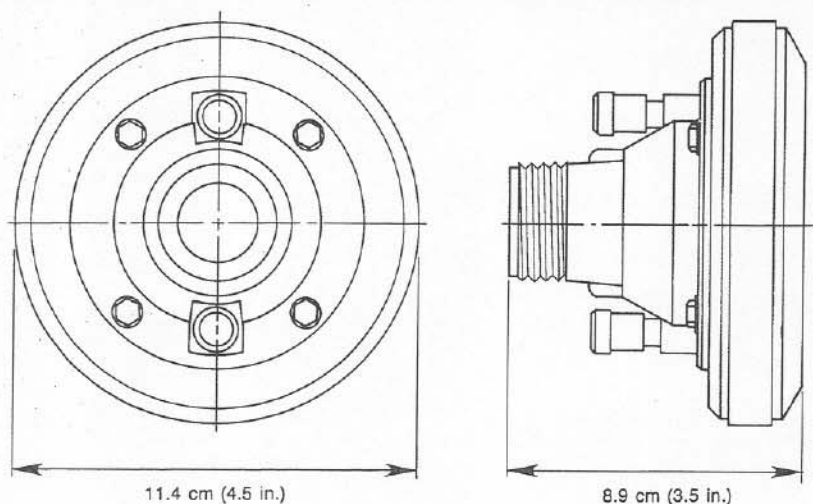


FIGURE 2
Dimensions

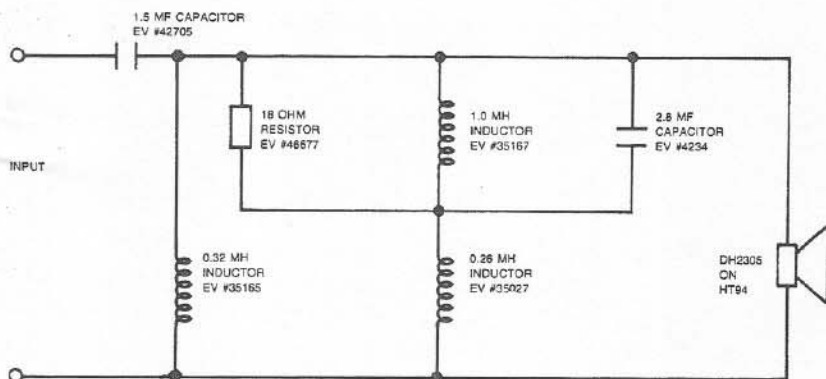


FIGURE 3
Combined Crossover/Equalizer for a
3000 Hz Crossover Frequency

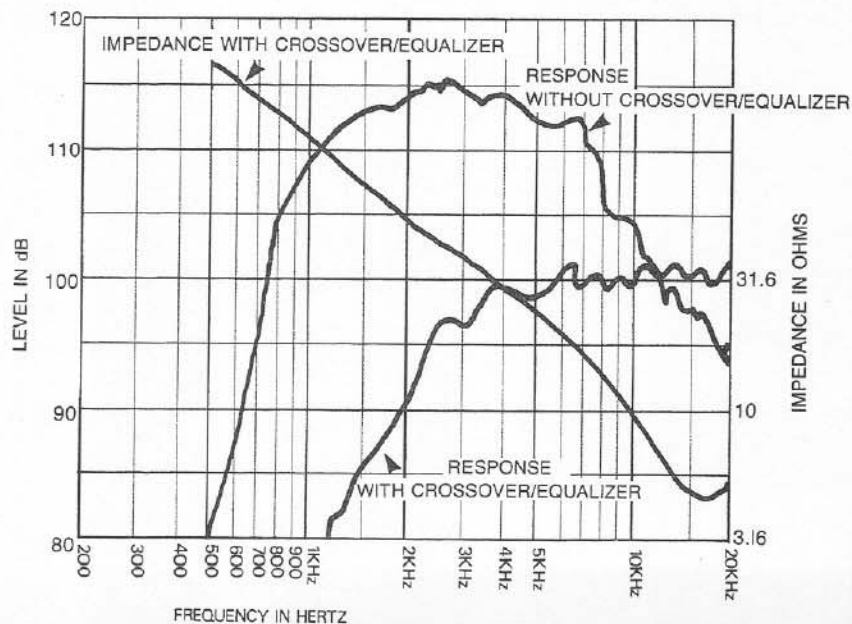


FIGURE 4
Axial Frequency Response, 1 Watt/1 Meter — HT94 Horn

RECOMMENDED HORNS

The following Electro-Voice horns are recommended for use with the DH2305: HT94; 8HD.

CROSSOVER AND EQUALIZATION

As with any horn and driver combination that combines high quality with constant-directivity characteristics, the DH2305 Driver and HT94 Horn provide a "raw" or unequalized sound pressure that rolls off at higher frequencies. Figure 3 shows the combined equalizer and 3 kHz passive crossover. Both equalized and unequalized responses are shown in Figure 4.

FIELD REPLACEMENT

In case of voice coil or diaphragm failure, the diaphragm cover sub-assembly on the front of the driver can be field replaced by the removal of four cover screws. A replacement kit with instructions may be ordered under Electro-Voice Part No. 89857XX from the Electro-Voice Service Department in Buchanan, Michigan. If desired, the complete driver may be returned for service.

WARRANTY (Limited) —

Electro-Voice Professional Sound Reinforcement 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 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) or Electro-Voice, West, 8234 Doe Avenue, Visalia, California 93277 (Phone: 209/625-1330,-1).

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

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

Specifications subject to change without notice.

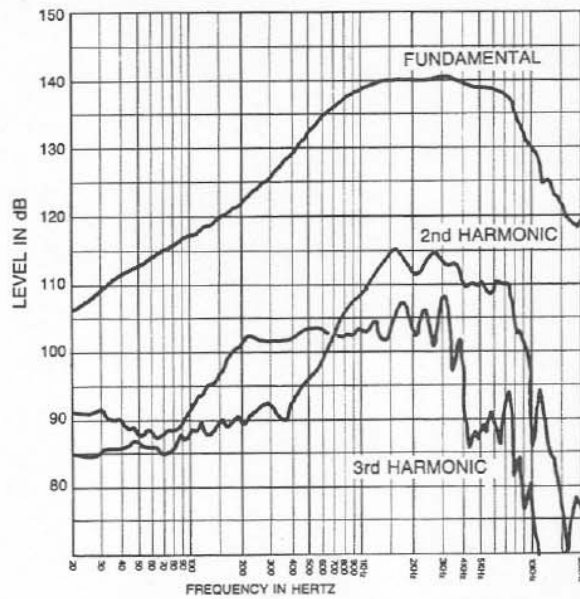


FIGURE 5
Distortion Response — Plane Wave Tube (1 inch)
(2 Watts Input)

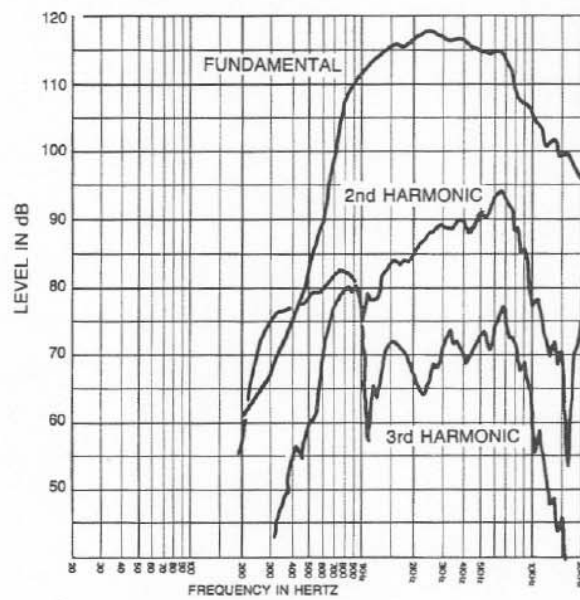


FIGURE 6
Distortion Response — HT94 Horn
(2 Watts/1 Meter)

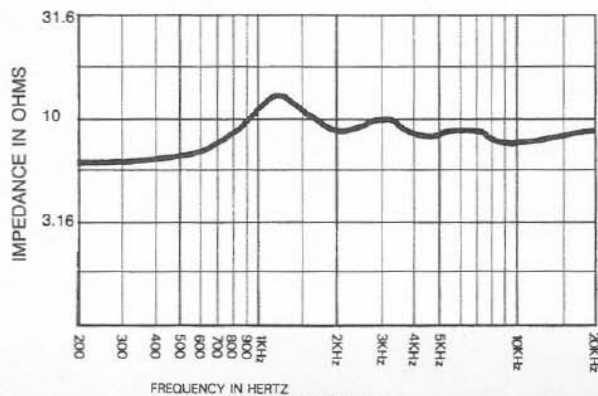


FIGURE 7
Impedance Response — Plane Wave Tube

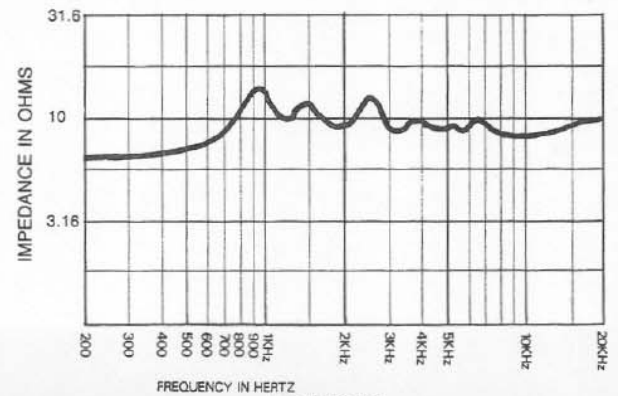


FIGURE 8
Impedance Response — HT94 Horn