



MODEL 145-8/16A

HIGH FREQUENCY
COMPRESSION DRIVERS

Manufacturing Company

The **Iconic™ Models 145-8A and 145-16A High Frequency Compression Drivers** are designed to provide excellent reproduction of the audio spectrum over a wide frequency range with extremely high efficiency. When coupled with **Mantaray™**, sectoral, conical, or Tractrix horns, these drivers are capable of providing uniform response at high levels large audience areas.

When used in conjunction with appropriate low frequency systems and dividing networks, the **Iconic 145-Series High Frequency Compression Drivers** furnish the most realistic sound reproduction found in large format high frequency compression drivers. No matter where they are used, be it in churches, motion picture theatres, music halls, or auditoria, the **Iconic Models 145-8A and 145-16A High Frequency Compression Drivers** will provide the most natural sound reproduction possible today the least amount of induced distortion found in any unit of its type available.

All high frequency compression drivers consist of three basic parts: (1) A diaphragm; (2) An acoustical transformer; and (3) A motor. All **Iconic** high frequency compression drivers are designed and built using the finest engineering principles, materials, and manufacturing tolerances in the industry.

☐ **SUPERIOR DIAPHRAGM MATERIALS & CONSTRUCTION**

At the heart of these models is the diaphragm/voice coil assembly - the "vocal chord" of a high frequency compression driver. If a loudspeaker designer fails in this portion of his work, all the rest will be for naught. At a time when many manufacturers claim to have reinvented the proverbial wheel, **Iconic Manufacturing Company** has chosen a different path. Every **Iconic** high frequency compression driver incorporates only the finest, time-tested manufacturing methods, along with modern materials and adhesives. In order to assure superior sound reproduction, every **Iconic 109-Series High Frequency Compression Driver** combines an all-metal Pascalite™ dome, a tangential compliance, and a voice coil of 2.84-inch edgewound aluminum ribbon into a field-replaceable assembly.

The Pascalite™ diaphragm construction enable the **Iconic Model 145-Series** to produce the same output level as drivers having 2-inch exit apertures and larger diaphragm sizes, but without the distortion inherent in them. In addition, **Iconic's** large-format high-frequency compression drivers are some of the very few units of their type capable of having usable output up to 16,000 Hz without the use of specialized equalization.

☐ **SUPERIOR TANGERINE™ RADIAL PHASING SYSTEM**

Getting the sounds generated by the diaphragm to the listener in proper phase alignment is also extremely important, and is another area where most manufacturers fail miserably. All **Iconic**

PRELIMINARY DATA SHEET
- No Photo Available At This Time -

high frequency compression drivers incorporate a **Tangerine™** radial phasing system, which provides proper phasing which ensures maximum high frequency reproduction while maintaining smooth overall response.

☐ **SUPERIOR FERRITE V MAGNETIC STRUCTURE**

Lastly, it takes a powerful motor structure to bring the other two parts of a high frequency compression driver together and transform them into a system that flawlessly reproduces sound in a natural manner. Many manufacturers have opted to use exotic magnetic structures in the design of their high-frequency compression drivers. While offering some benefits, such as weight reduction, these new materials require a tradeoff that hinders sonic performance of their drivers. Each **Iconic** high frequency compression driver is built around a proven magnetic assembly of 6.7-pounds of FerriteV, resulting in an extremely efficient unit having a flux density of 20,500 gauss.

Working together in a symbiotik relationship, the diaphragm, **Tangerine™** radial phasing system, and the powerful but small magnetic structure ensure that the **Iconic™ Models 109-8A and 109-16A High Frequency Compression Drivers** are capable of uniform, peak-free reproduction throughout the range of human hearing, and make them ideal as the high frequency component in medium and small sound system environments.

*You Can HEAR The
Difference!™*

145-A SERIES HIGH FREQUENCY COMPRESSION DRIVERS

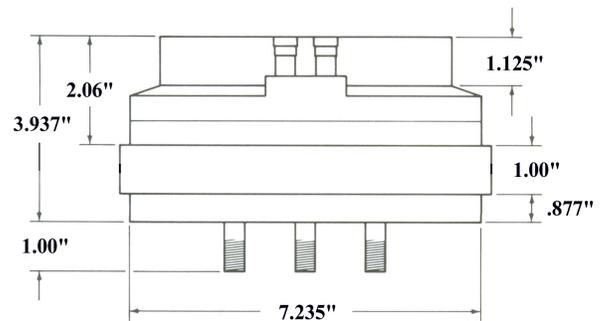
PERFORMANCE SPECIFICATIONS -

Frequency Response:	500 Hz - 15 kHz (See Notes 1 & 2)
Power Handling:	
50 Hz - 5 kHz:	50 W, AES method (See Note 3) 150 W, continuous program (See Note 7) 200 W, peak power (See Note 8)
1 kHz - 10 kHz:	75 W, AES method (See Note 3) 150 W, continuous program (See Note 7) 300 W, peak power (See Note 8)
Pressure Sensitivity:	145 dB SPL (1 W, 500 Hz - 3 kHz, see Note 4). 112 dB SPL (1 W, 500 Hz - 3 kHz, on large-format 90 x 40 Mantaray™ horn. See Note 5).
Impedance:	Model 145-8A = 8 ohms, minimum. Model 145-16A = 16 ohms, minimum. (see Note 7)
Input Connections:	Screw terminals with .25" lugs for push-on connectors.
Diaphragm Construction:	Hydropneumatically formed all-metal Pascalite™ dome and tangential compliance driven by a 2.84-inch diameter voice coil of edgewound aluminum ribbon.
Flux Density:	20,500 gauss.
Magnet Type:	FerriteV
Acoustical Transformer:	Tangerine™ Radial Phasing System.
Diaphragm Preload:	Balanced, internal magnet venting/large rear cover
Magnet Weight:	6.7 pounds.
Net Weight:	30.5 pounds.
Finish:	Gray powder coat paint.
Replacement Diaphragms:	Model 145-8A = #25884 Model 145-16A = #25885

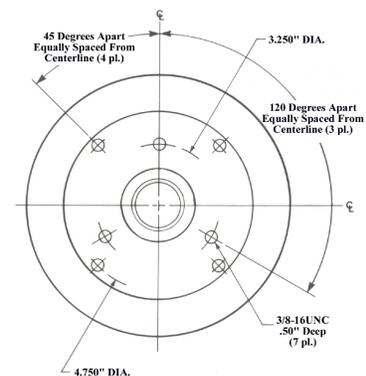
Notes On Measurement Conditions:

1. One watt calculated using E^2/Z_{min} , 1.4" diameter plane wave tube measurement referred to a 1" diameter plane wave tube.
2. On-axis, one-watt calculated using E^2/Z_{min} , 3.16 meter measurement distance referred to one meter.
3. Test made on a horn with loading to 500 Hz, pink noise signal with 6 dB crest factor, power calculated, using E^2/Z_{min} . 12 dB/octave filter slopes, for two hours.
4. Pink noise signal, one watt calculated using E^2/Z_{min} , 1.4" diameter plane wave tube referred to a 1" diameter plane wave tube.
5. On-axis, pink noise signal, one watt calculated using E^2/Z_{min} , 3.16 meter measurement distance referred to one meter.
6. Minimum impedance occurs in frequency between 4 kHz and 5 kHz. Maximum production variation in minimum impedance is +/- 15%.
7. Continuous program is defined as 3 dB greater than the AES rating using a pink noise signal with 6 dB crest power.
8. Peak power is defined as 6 dB greater than the AES rating using a pink noise signal with 6 dB crest factor.

DIMENSIONS:



- SIDE VIEW -



- BOTTOM VIEW -

Iconic Manufacturing Company

www.iconicspkrs.com

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