

Iconic™

MODEL 704-8A

COMPOUND STUDIO
MONITOR LOUDSPEAKER

Manufacturing Company

The **Iconic™ Model 704-8A Compound Loudspeaker System** is a two-way loudspeaker that is designed to provide unsurpassed reproduction of the audio spectrum over a wide frequency range with extremely high efficiency. When coupled with our exclusive **SuperCrossover™** and installed in an appropriate enclosure, the **Iconic Model 704-8A Compound Loudspeaker System** is a totally natural-sounding loudspeaker that exhibits absolutely accurate phasing and stereo imaging across the entire spectrum of human hearing.

□ **True “Point Source” Acoustic Imaging -**

The **Iconic Model 704-8A** is actually two loudspeakers in one, consisting of an extremely efficient low-frequency loudspeaker and a high-frequency compression driver/horn assembly that are mounted together coaxially. This *compound* magnet construction technique is what makes the **Model 704-8A** so special - because both the low and high frequency sounds of this loudspeaker system originate from the same vertical *AND* horizontal planes, unsurpassed accuracy of reproduction and spatial separation are attained.

□ **Excellent Low-Frequency Reproduction -**

One of the most impressive aspects of modern digital sound recordings is the low frequency content found in them. In order to attempt to reproduce these sounds, most “digital ready” loudspeakers incorporate large heavy voice coils, inarticulate suspension systems, and cones that weigh far too much to be able to reproduce the middle of the audio spectrum accurately. They also require huge amounts of amplifier power in order to operate. In addition, most of these designs incorporate voice coils that “overhang” outside of the magnetic field. This method of construction results in a significant loss of control of cone movement, which reduces the ability of the loudspeaker to articulate sounds accurately.

The **Iconic Model 704-8A Compound Loudspeaker System** doesn't resort to such techniques in order to be able to respond to the demands of digital music and sound effects. The **Model 704-8A** has a lightweight cone, high-compliance suspension, and the low-frequency voice coil remains in the magnetic gap at all times. Coupled with a massive FerriteV motor structure, these features allow the **Model 704-8A** to have tighter bass, cleaner sound, and more accurate low-frequency sound reproduction than virtually any other system of its type available today.

□ **Superior High-Frequency Reproduction -**

At the heart of the high-frequency section of the **Iconic Model 704-8A** is the diaphragm/voice coil assembly. 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 when it comes to reproducing the upper frequencies, **Iconic** has chosen a different path, incorporating only the finest, time-tested materials and manufacturing methods in the construction of the **Model 704-8A's** high-frequency section. This includes: (1) an all-metal aluminum dome structure; (2) a tangential compliance; and (3) a voice-coil of 1 3/4-inch



edgewound aluminum ribbon. These features assure superior sound reproduction of the frequencies above crossover in the **Model 704-8A**.

Transmitting the sounds generated by the diaphragm to the listener in proper phase alignment is also crucial, and is another area where most manufacturers fail miserably. The **Iconic Model 704-8A** incorporates a **TANGERINE™** radial phasing system, which ensures maximum high frequency reproduction while maintaining proper phasing and smooth overall response to beyond 20 kHz.

When in operation, the sound waves leave the high-frequency diaphragm, pass through the **TANGERINE™** radial phasing system, then enter an exponential throat that conducts these properly phased high-frequencies through the center of the low-frequency pole piece and into the small **MANTARAY™** horn. Many horn designs have a tendency to narrow their dispersion patterns as the pitch goes up. The **MANTARAY™** design, on the other hand, delivers the same dispersion pattern throughout the loudspeaker's frequency range. The resultant benefit to the listener is a startling, almost three-dimensional stereo image with excellent latitude in seating position.

Working together in a symbiotic relationship, the low-frequency section, the high-frequency diaphragm, the **TANGERINE™** radial phasing system, the small **MANTARAY™** high-frequency horn and the powerful FerriteV magnetic assemblies are capable of generating uniform, peak-free reproduction throughout the range of human hearing, making them ideal as the loudspeaker system of choice where natural, uncolored sound reproduction are required.

You Can HEAR The Difference!™

704-8A COMPOUND STUDIO MONITOR LOUDSPEAKER SYSTEM

PERFORMANCE SPECIFICATIONS -

Frequency Response: 30 Hz - 20 kHz

Power Handling: 140 watts continuous pink noise from 60 Hz - 20 kHz, AES method.

Pressure Sensitivity: 99 dB SPL (1 watt, 500 Hz - 3 kHz, re: 20 μ Pa).

Minimum Impedance: 8 ohms

Input Connections: .25-inch spade type terminals.

Components: 16-inch, high efficiency, low-frequency driver with a coaxially mounted, 1-inch high-frequency compression driver and Mantaray™ horn.

Standard Crossover

Network (optional): Full-section with 1,500 Hz crossover frequency, 12 dB per octave slope for the low frequencies, and 18 dB per octave for the high frequencies.

Thiele-Small Parameters:

<i>X_{max} (inch)</i>	=	0.20
<i>R_e (ohms)</i>	=	6.80
<i>V_d (cu. in.)</i>	=	19.20
<i>F_s (Hz)</i>	=	30.90
<i>V_{as} (cu. ft.)</i>	=	16.35
<i>Ref. Eff (%)</i>	=	4.87
<i>Q_{ts}</i>	=	0.261
<i>Q_{ms}</i>	=	8.49
<i>Q_{es}</i>	=	0.270
<i>V_{id} (cu. ft.)</i>	=	0.24

Magnet Type: FerriteV

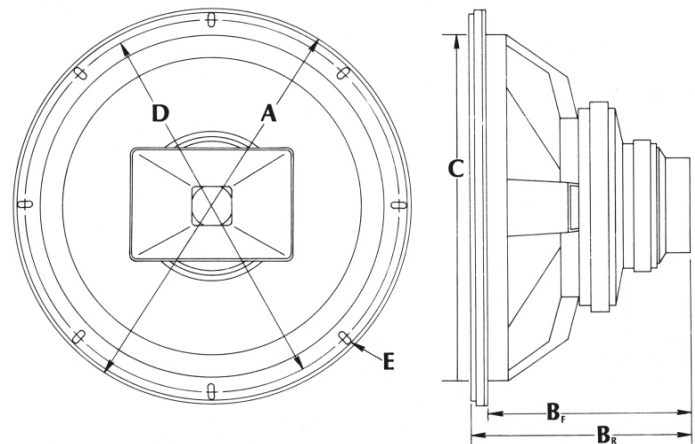
Flux Density: LF = 12,800 Gauss
HF = 17,000 Gauss

Dimensions: Diameter = 16-inches
Depth = 8-inches

Net Weight: 34 pounds, less network.

Finish: Gray powder coat paint.

Loudspeaker Mounting Dimensions:



- A =** Loudspeaker Diameter: 16"
- B_F =** Depth When Front Mounted: 8"
- B_R =** Depth When Rear Mounted: 8.75"
- C =** Baffle Opening Diameter: 14 1/8"
- D =** Bolt Circle Diameter: 15"
- E =** Bolt Hole Slots: 1/4" x 3/4" (8 slots spaced 45° apart)

Iconic™ Manufacturing Company
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