



# RENKUS-HEINZ

Coherent Topology System

## CT8



### Integrating Innovations for Breakthrough Performance

CT Series systems integrate Ralph Heinz's latest breakthroughs to achieve unprecedented performance. Because acoustics is a physical phenomenon, these advanced systems incorporate physical solutions to longstanding acoustical problems. TRue Array Principle (TRAP) enclosures ensure optimum coverage in tight-packed arrays. Complex Conic horns provide superior pattern control and more natural reproduction than conventional horns. Patented CoEntrant topology creates a new type of wideband, low distortion point source transducer. The result of integrating these new ideas is a system that redefines "reference quality" in medium- to large-scale sound reinforcement.

### Advanced Complex Conic Horn Design

Designed around the spherical expansion of the acoustic pressure wave, Complex Conic horns combine constant beamwidth/directivity without the problems of conventional rectangular horns. These unique waveguides eliminate low frequency "pattern flip." The oval mouth has no corners to cause high frequency "feathering" and the resulting distortion.

With extended pattern bandwidth, lower distortion, and minimal coloration, Complex Conic horns work better and sound far more natural than ordinary horns.

Because they have no large planar surfaces, Complex Conic horns are less prone to in-band resonances than ordinary horns. To eliminate resonance-induced coloration, CT Series horns are molded from UHMW Polyurethane.

### ACOUSTICALLY COHERENT TOPOLOGIES

are integrated in high performance systems for applications that demand 137 dB peak SPL and reference quality

### COENTRANT TOPOLOGY (U.S. Pat. 5,526,456)

Integrates a midrange cone and HF compression driver into a true point source with inherent time-alignment

### COMPLEX CONIC: THE NEXT STEP IN HORN EVOLUTION

Complex Conic horns provide superior pattern control and more natural sound; may be rotated 90°

### TRAP "TRUE ARRAY PRINCIPLE" CONFIGURATION

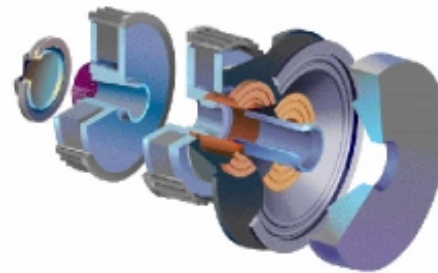
Assures coincident acoustical centers and minimal comb filtering in tight packed arrays

### EXCLUSIVE ARRAYGUIDE DESIGN (U.S. Pat. 5,750,943)

Unique 40° x 20° Arrayguide is ideal for both point source horizontal arrays and vertical line arrays

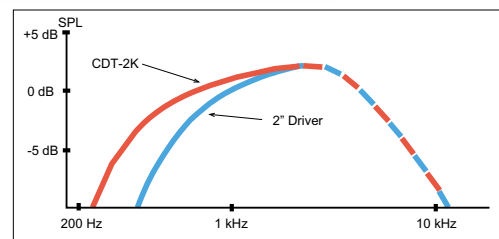
### Patented CoEntrant Topology

Integrates the acoustic output of an 10" cone and a 2" compression driver into a wideband, high-power true point source. The result is a revolutionary new type of transducer that outperforms ordinary compression drivers in every dimension: power handling, frequency response, distortion, reliability, etc.



Cutaway view showing CoEntrant Driver concept

Equalized Power Response Chart clearly shows the superior bandwidth of the CDT-2

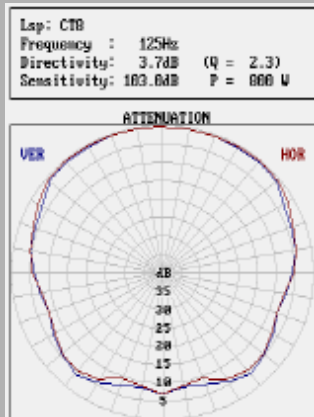


### Exclusive Complex Conic Arrayguide

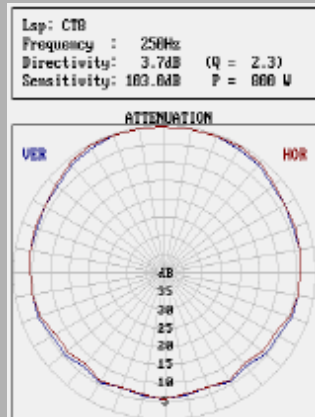
Complex Conic Arrayguides are arrayable in both the horizontal and vertical planes. They function as a horizontal point source in horizontal arrays and as a vertical line source in vertical arrays. In either application, they provide seamless arrays with virtually no comb filtering.

**Polar Patterns**

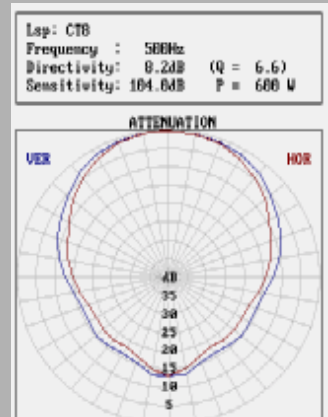
**125 Hz**



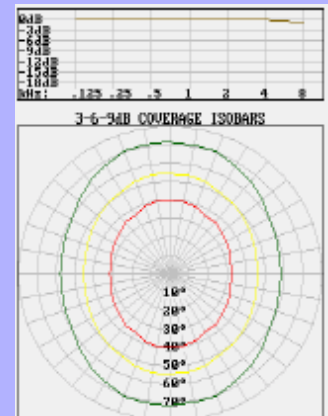
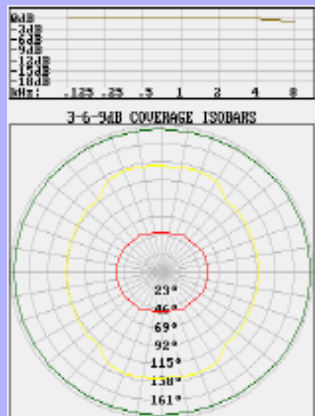
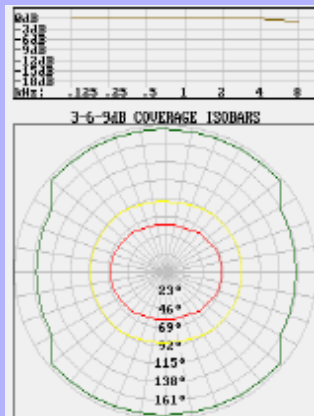
**250 Hz**



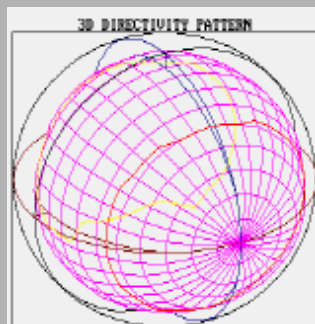
**500 Hz**



**-3, -6, -9  
Coverage  
Isobars**



**3-D  
Directivity  
Balloons**



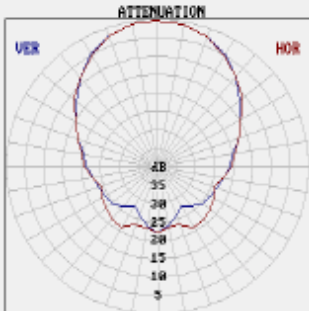
### 1000 Hz

### 2000 Hz

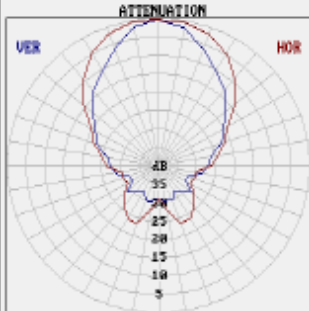
### 4000 Hz

### 8000 Hz

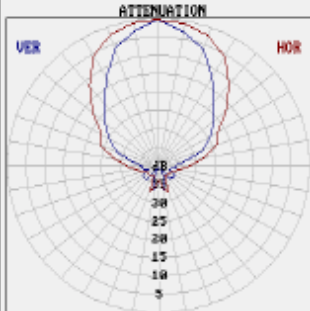
Lsp: CTB  
Frequency : 1000Hz  
Directivity: 11.6dB (Q = 14.5)  
Sensitivity: 104.6dB P = 660 W



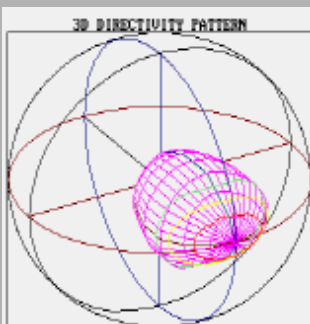
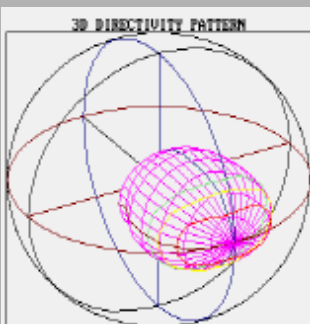
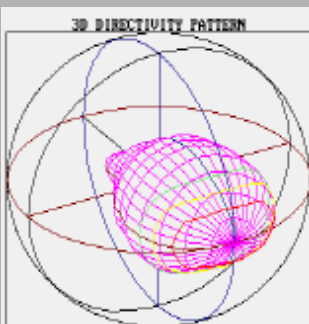
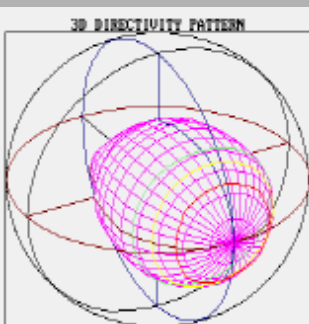
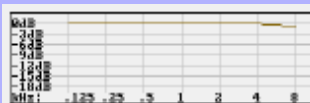
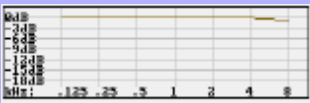
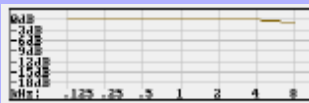
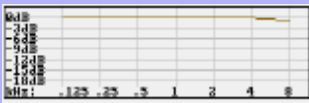
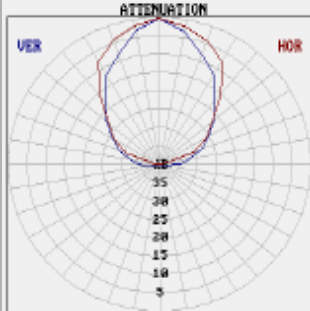
Lsp: CTB  
Frequency : 2000Hz  
Directivity: 13.5dB (Q = 22.4)  
Sensitivity: 111.6dB P = 150 W



Lsp: CTB  
Frequency : 4000Hz  
Directivity: 14.6dB (Q = 28.8)  
Sensitivity: 111.6dB P = 150 W



Lsp: CTB  
Frequency : 8000Hz  
Directivity: 16.0dB (Q = 39.8)  
Sensitivity: 111.6dB P = 150 W



**SENSITIVITY (1w/1m):**  
**300 Hz:** 103 dB  
**800 Hz:** 103 dB  
**2500 Hz:** 111 dB  
**MAX. SPL (Pgm/Peak):**  
**300 Hz:** 134 /137 dB  
**800 Hz;** 131 /134 dB  
**2500 Hz:** 133 /136 dB

**DISPERSION:** 40° H by 20° V

**FREQUENCY RESPONSE:** 60 Hz to 18 kHz

**MID/HIGH DRIVER:** CDT-2 CoEntrant w/3" throat, 2" HF & 10" mids; 300 W RMS into 8 Ohms (600 W pgm). M/H passive crossover included.

**LOW FREQUENCY DRIVER:** SSL15-7 15" woofer; 4" VC, weather resistant treated paper cone. 700 W RMS into 8 Ohms (1400 W pgm)

**CROSSOVER POINTS:** 350 and 1500 Hz

**ENCLOSURE MATERIALS:** Multi-ply hardwood with perforated metal grille

**CONNECTOR OPTIONS:** Neutrik NL4MPR or screw terminals

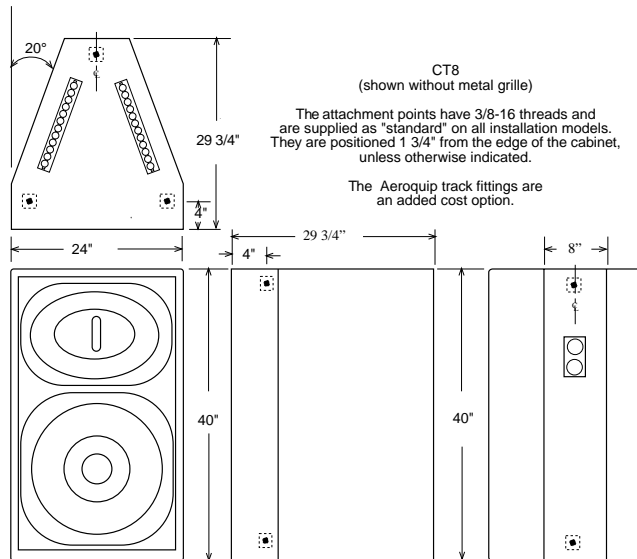
**FINISH OPTIONS:** Black carpet, black or white paint, Natural (unfinished) Weather resistant

**HARDWARE OPTIONS:** Handles, 12-point 3/8-16 univ. mtg. hdw, Aeroquip track

**DIMENSIONS:** 40" H x 24" W x 29 3/4" D (101.6 cm x 61 cm x 75.6 cm)

**NET WEIGHT:** 167 Lbs, 75.8 Kg net  
**ASSOCIATED ITEMS:** R-H System Specific power amplifiers and Loudspeaker Specific processor modules; X series controllers; D26A digital processor

### DIMENSIONAL INFORMATION



### ARCHITECTS AND ENGINEERS SPECIFICATIONS

The loudspeaker shall be a Renkus-Heinz CT8 or approved equal full-range, 3-way loudspeaker system utilizing Complex Conic Horn Technology. Loudspeakers having conventional constant beamwidth or conical horns will not be considered equal.

The loudspeaker system shall consist of a heavy duty 15" woofer and a CoEntrant mid/high driver coupled to a single complex conic horn. The 15" woofer shall have a 4" VC, heavy-duty fiber cone and 1400 Watt power rating. The mid/high driver shall include a 2" HF driver and 10" weather resistant treated paper cone mid frequency driver having a 600 Watt at 8 Ohms power rating. The enclosure shall be a 40° trapezoidal cabinet constructed from multi-ply hardwood. It shall include a built-in mid/high crossover network.

The loudspeaker shall provide closely controlled 40° horizontal dispersion and 20° vertical coverage. Sensitivity at ( ) Hz shall be no less than ( ) dB @ 1w,1m. Maximum program SPL shall be at least 134 dB. The frequency response shall be 60 Hz to 18 kHz.

The finish shall be (black carpet) (black paint) (white paint) (natural) (weather resistant). Connectors shall be (4-pin Neutrik)(screw terminals). The loudspeaker shall be no larger than 40" high, 24" wide and 29 3/4" deep. It shall weigh no more than 167 Lbs. A matching perforated metal grille shall be included. The enclosure shall be equipped with (universal mounting hardware providing a minimum of twelve 3/8-16 attachment points) (top and bottom mounted Aeroquip fly track).