





**The Tuned Conic Converter**



When it comes to innovation, once again Renkus-Heinz leads the way.

Line arrays rely upon their ability to convert the spherical wavefront of a typical loudspeaker into a planar (flat) wavefront that couples coherently with the output of adjacent modules to create a plane wave. Plane waves diminish less rapidly over distance (3 dB loss for every doubling of distance) than spherical waves that decay 6 dB every time the distance doubles.

Our new Tuned Conic Diverter carefully shapes the curvature of the wavefront within the horn so that it's curvature matches the curvature of the array and couples seamlessly with adjacent modules.

As sound progresses through the horn, it's wavefront is progressively manipulated, passing through a tuned conic diverter, slowing the wavefront's expansion in the center and modifying its curvature to match the shape of the cabinet.

**HF Balance Control**



An adjustable HF balance control panel on each full range module allows you to adjust the high frequency output of each module to compensate for the changes in high frequency coupling that occurs between adjacent modules in multi-module line arrays.

It is invaluable in helping you assure that every member of the audience receives the same well balanced sound, even those seated in the rear of the audience area.

**Safe & Simplified Hardware**



Simple, rugged, integral hardware allows for maximum versatility, maximum safety, and fast setup and teardown.

Metric M10 attachment points allow individual modules to be easily flown with eye bolts.

Multiple full range modules can be ground stacked or pole mounted using the matching subwoofer as a base. Up to 6 modules and two subwoofers can be flown. The array modules and subwoofers are joined together with heavy-duty tie bars and quick-disconnect pins that provide easy assembly along with metal-to-metal reliability.

The matching subwoofers employ the same simple yet sturdy hardware enabling full range array modules to be flown beneath the subwoofer. An associated fly-bar that attaches easily to the subwoofer completes the package.

CF/CFX101LA hardware has been designed to work either way so left and right systems can be setup symmetrically without the need for mirror image cabinets.

**Multi-Angle Pole Sockets**



Multi-angle 35 mm pole sockets allow CF101LA and CFX101LA array modules to be mounted on standard loudspeaker stands or on heavy duty pole mounts attached to an associated CF15S or CFX15S subwoofer.

The multi-angle socket allows the cabinet to be aimed straight ahead or angled up or down depending on the needs of the venue.

**RHAON** Renkus-Heinz Audio Operations Network

RHAON is the first practical system to combine individual loudspeaker control and supervision of self-powered loudspeaker systems with digital audio distribution. RHAON puts you in total control of:

- A powerful DSP inside each loudspeaker on the Ethernet network that includes eight bands of parametric EQ, high and low frequency shelving filters, input level control, muting and up to 340 ms of delay.
- Monitoring of each loudspeakers critical operating parameters such as signal clipping, amplifier output voltage and current and temperature with automatic alert functions.
- Real time digital audio distribution over standard Ethernet networks using proven CobraNet technology to deliver multiple channels of high quality digital audio over a CAT 5 cable.



## TECHNICAL INFORMATION

**Sensitivity**  
**CF101LA-5, -5R & -52R:** 1.0 V for rated power output  
**CFX101LA & LA-8:** 96 dB (1W/1m)

**Max SPL:** 126 dB peak

**Dispersion:** 90° Horizontal, 15° Vertical

**Freq. Response:** 60 Hz to 20 kHz

**HF Drivers:** Two 1" SSDCDXI-1730-8 HF Neodymium drivers;  
 75 W RMS @ 8 Ohms, 150 W pgm each

**LF Driver:** **CF101LA & CFX101LA:** 10" Neodymium woofer, model SSL10-10, 250 W RMS @ 4 Ohms, 500 W pgm  
**CFX101LA-8:** 10" Neodymium woofer, model SSL10-8, 250 W RMS @ 8 Ohms, 500 W pgm

**Crossover:** 1700 Hz

**Enclosure:** Multi-ply hardwood, perforated metal grille

**Power**  
**CF101LA-5, -5R & -52R:** 115 V AC or 230 V AC, 50/60 Hz  
**CFX101LA:** 500 W pgm at 4 Ohms  
**CFX101LA-8:** 500 W pgm at 8 Ohms  
**Controls:** Array balancing

**Connectors:** **CFX101LA-8:** Neutrik 4-pin Speakon style connectors, Screw terminals

**Finish:** Black or white  
**Hardware:** Four Metric M10 attachment points  
 Multi-angle pole socket

**Associated Hardware:** RHANG101LA flybar  
 POLE-CF101 mounting pole

**Dimensions:** 13" H x 23 3/4" W x 15" D  
 (33 cm x 60.3 cm x 38.1 cm)

**Weight**  
**CF101LA-5 & -5R:** 47 1/2 Lbs. (20.7 Kg) net  
**CF101LA-52R:** 48 1/2 Lbs (22 Kg) net  
**CFX101LA & LA-8:** 42 1/2 Lbs (19.3 Kg) net

**Power:** 500 W RMS @ 4 Ohms  
**Freq. Resp:** +0.0, -5 dB, 20 Hz to 20 kHz  
**THD Distortion:** < 0.02% typical  
**Hum & Noise:** <100 dB (A weighted)  
**Damping:** >100  
**Input:** 10K Ohm balanced differential  
**Sensitivity:** 1.0 V for RPO  
**CMR:** 74 dB

## PF1-500 DIGITAL AMPLIFIER

**Controls:** Gain (screwdriver adjustable)  
**Power Connector:** IEC Power connector  
**Input:** Looping XLR; female in, male out (pin 1 chassis, pin 2 +, pin 3 -)  
**Power:** Switchable, 115 or 230 V AC, 50/60 Hz  
 5 A @ 120 V, 2.5 A @ 240 V  
 Idle current: 400 ma @ 120 V;  
 200 ma @ 240 V  
 Max inrush current: 1 A

## PF1-500R RHAON EMPOWERED AMPLIFIERS

The PF1-500R is identical to the PF1-500 except for the addition of the RHAON Network Interface; additional capabilities include:

**Inputs:** CobraNet: Dual RJ45 connectors; accept Cat 5 copper cable.  
 AES/EBU: Phoenix connectors;  
 Analog: Phoenix connectors

**Digital Format:** 16, 20 or 24 bit PCM; 48 or 96 kHz sample rate; selectable Network Latency.

**Protection:** Soft & Peak limiting, Excursion Control & Thermal Regulation

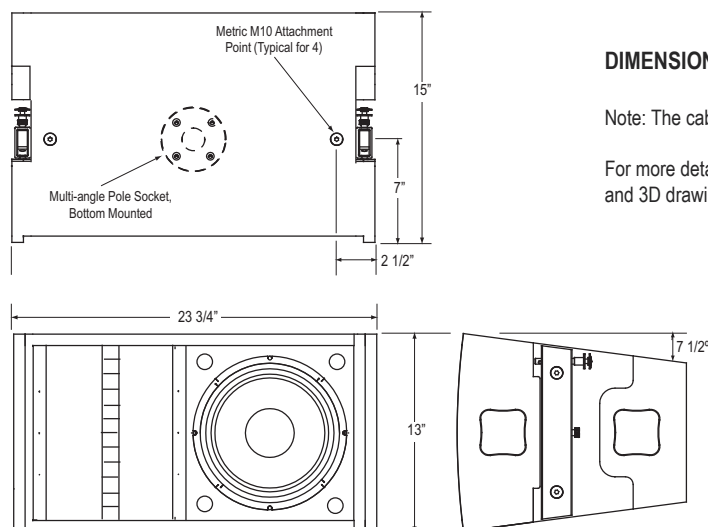
## PF2-500R RHAON EMPOWERED AMPLIFIERS

The PF2-500R is a RHAON empowered 500/200 W RMS bi-amplifier. It is identical to the PF1-500R except for also having a 200 Watt HF amplifier and associated electronic crossover.

**Power:** 6 A @ 120 V, 3 A @ 240 V  
 Idle current: 500 ma @ 120 V; 250 ma @ 240 V. Max inrush current: 1 A

For additional details on the RHAON Audio Operations Network, refer to [www.renkus-heinz.com/Rhaon/Index.html](http://www.renkus-heinz.com/Rhaon/Index.html).

Note: All analog inputs and outputs comply with AES Standard 48-2005 on interconnecting, grounding and shielding.



## DIMENSIONAL INFORMATION

Note: The cabinet is shown without its protective metal grille.

For more detailed dimensional information, please refer to the 2D and 3D drawing files on our website, [www.renkus-heinz.com](http://www.renkus-heinz.com).