



Uncompromising Performance, Unequaled Versatility

Self-powered PowerNet PN and non-powered PN Series loudspeakers unite advanced technology and application-driven engineering to bring live sound closer to the ultimate reference point: reality. Cutting edge driver technology and unique innovations such as our Complex Conic horn technology and unique innovations such as our Complex Conic horns deliver natural sounding music and intelligible speech. Advanced options like intelligent onboard amplification and RHAON - the Renkus-Heinz Audio Operations Network - help you build sophisticated sound systems that are easy to use. Wherever audiences and operators demand superior performance and ease of use, PN/PNX loudspeakers are the choice for transparent, reference quality performance.

All PN and PNX series loudspeakers are handcrafted especially for you in our Foothill Ranch, California facility. Numerous custom options are available.

Applications

- Virtually any application where size is a critical issue and reference quality sonic performance is required.

Permanent Installations

- Distributed systems in sports arenas and stadiums.
- Multi-channel A.V playback systems, live sound and music systems in clubs and disco's (with optional subwoofers).
- Side fill in all types of large sound reinforcement systems.

Portable Applications

- Stage monitors for theatrical and concert sound systems, sound reinforcement systems in houses of worship, performing art centers, etc.
- Rental A/V, systems, churches, schools, etc.



PN-1/PN-1R PowerNet Amplifiers

The PN-1, the heart of PowerNet performance, is a new kind of intelligent electronics system. It combines low feedback Class A/B amplification and comprehensive signal processing into a single compact unit. Crossovers and parametric EQ are integrated into the signal path. Loudspeaker specific processing senses when output levels are about to damage the system and limits them to safe levels.



The PN-1R adds RHAON, the Renkus-Heinz Audio Operations Network. RHAON empowers you with full control over digital audio distribution, loudspeaker specific DSP and remote control/ monitoring -- all using standard Ethernet hardware and cable.

The PN-1R has dual analog inputs, dual CobraNet inputs and an AES3id serial input. The onboard DSP is easily configured using RHAON software; it includes eight bands of parametric EQ, high and low shelving filters, delay and input level control. Critical operating parameters such as signal clipping, amplifier output voltage and current, and temperature are continually monitored with automatic alert functions.

If you need a reference quality 12-inch 2-way system, order the PNX121M/A or the PN121M. If you need Ethernet-based audio operations networking, order the RHAON empowered PN121M-R.

PN/PNX Series

PNX121M

Non-Powered

PN121M

Self-Powered

12" Woofer - 2" HF 2-Way Complex Conic Loudspeakers

ACTIVE • POWERED • NETWORKED MAXIMUM CONTROL • MAXIMUM CHOICE



- **Reference Quality, High-Output 2-Way Systems**
Accurate full-range response from 55 Hz to 18 kHz; 129 dB peak SPL performance.
- **Exclusive Complex Conic Design**
Provides constant beamwidth/directivity without the problems of conventional rectangular horns; can be rotated 90° within the cabinet for wide or deep listening spaces.
- **RHAON Renkus-Heinz Audio Operations Network**
Self-powered PN121M-R cabinets include RHAON for flexible digital signal distribution, loudspeaker management & control.
- **PNX121M/A Non-Powered Loudspeakers**
Are active loudspeakers for "no-compromise" performance and greater versatility. Weather resistant models are available.
- **PN121M PowerNet Self-Powered Loudspeakers**
Include the PN-1 Class A/B amplifier with loudspeaker specific signal processing and protection.
- **Wide-Angle Coverage**
Dispersion: 120° by 60°.
- **Great versatility**
The PN121M, PN121M-R and PNX121M are available in either portable or fixed installation versions in a wide choice of finishes. The horns may be rotated 90° for either horizontal or vertical mounting applications. "Mirror Image" models are available on request.

TECHNICAL INFORMATION

Sensitivity: PN121M - 1.4 Volt for RPO
PN121M-R; 1.0 Volt for RPO
PNX121M/A: 98 dB (1W/1m)

Max SPL

PN121M & PN121M-R: 126 dB peak
PNX121M/A: 129 dB peak

Dispersion: 120° H by 60° V

Freq. Response: 55 Hz to 18 kHz

HF Driver: 2" SSD3302-8 driver, 8 Ohms;
75 W RMS, 150 W program

LF Driver: 12" model SSL12-9, 300 W RMS @ 4 Ohms, 600 W program

Enclosure: Multi-ply hardwood, perforated metal grille

Power – PN121M & PN121MR: 115 V AC or 230 V AC, 50/60 Hz

PNX121M/A: Highs; 150 W pgm at 8 Ohms
Lows; 600 W pgm at 4 Ohms

Connectors – PNX121M/A: Screw terminals & looping Neutrik 4-pin SpeakOn style connectors

Finish: Black, white or custom color paint
Natural (unfinished)
Weather Resistant

Hardware Options: 12-point univ. mtg. hdw.(Metric M10 threads)
U-bracket attachment points, Tripod socket
PN Weather Resistant Kit

Dimensions: 23" H x 14 1/4" W x 12 3/16" D
(58.4 cm x 36.2 cm x 30.5 cm)

Weight

PN121M & PN121M-R: 77 Lbs (35 Kg) net

PNX121M/A: 67 Lbs (30.5 Kg) net

PN-1 AMPLIFIER

Power Rating: 300 W RMS @ 8 Ohms

Freq. Response: +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: 1.4 V for RPO

CMR 74 dB

Controls: Gain (screwdriver adjustable)

Connectors

Input: Looping XLR; female in, male out (pin 1 chassis, pin 2 +, pin 3 -)

Power: IEC Power connector

Power: 90-136 VAC or 180-260 VAC 50/60Hz.

4 A @ 120 V, 2 A @ 240 V
Idle current: 300 mA @ 120 V;
150 mA @ 240 V

Max inrush current: 10 A

PN-1R RHAON EMPOWERED AMPLIFIER

The PN-1R amplifier is identical to the PN-1 except for the addition of the RHAON Network Interface; additional capabilities include:

Inputs: CobraNet: dual RJ45 connectors; accept
CAT 5 copper cable.

; 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

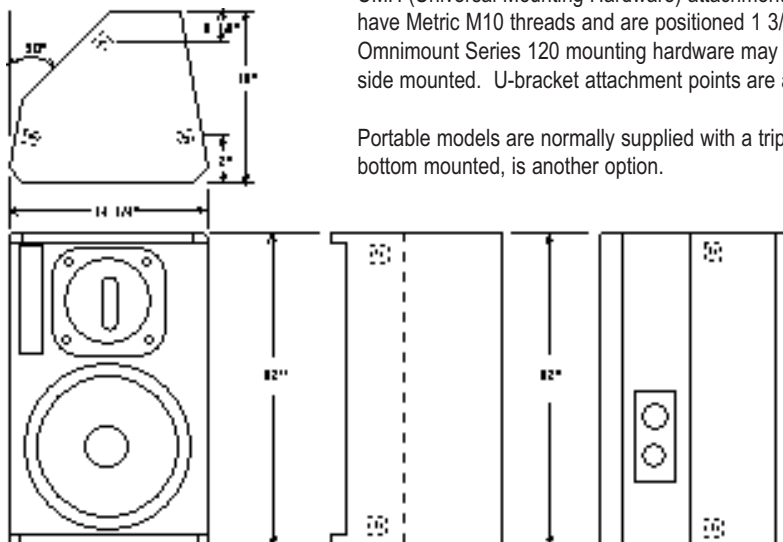
For additional details on the RHAON Audio Operations Network, refer to
www.renkus-heinz.com/Rhaon/Index.html.

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

DIMENSIONAL INFORMATION

UMH (Universal Mounting Hardware) attachment points are standard on all fixed installation models. The points have Metric M10 threads and are positioned 1 3/4" from the edges unless otherwise indicated. A nut-plate for Omnimount Series 120 mounting hardware may be substituted for the UMH points; can be either top, bottom or side mounted. U-bracket attachment points are a third option.

Portable models are normally supplied with a tripod socket and no attachment points. AeroQuip fly-track, top and bottom mounted, is another option.



Note:

The rear view of a PNX121M is shown. The enclosure is shown without its metal grille.

For more detailed dimensional information, please refer to the 2D and 3D drawing files on our website, www.renkus-heinz.com