

# **Uncompromised Performance - Unequalled Versatility**

The self-powered PowerNet ST9R and non-powered STX9 Series loudspeakers unite advanced technology and application-driven engineering to bring live sound closer to the ultimate reference point: realitv. Patented CoEntrant M/H transducers, Class D Digital Tri-Amplification and unique innovations such as our Complex Conic horns deliver natural sounding music and intelligible speech. Wherever audiences and operators demand superior performance and ease of use, ST/STX loudspeakers are the choice for transparent, reference quality perform-

All ST9R PowerNet loudspeakers are RHAON empowered for flexible analog and digital signal distribution and loudspeaker management and control over a standard Ethernet network.

# **Applications**

- · Virtually any application where directional control and arrayability are critical issues and outstanding sonic performance is required.
- · 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.
- Array modules for theatrical and concert sound systems. sound reinforcement systems in houses of worship.



## PM-3R PowerNet Tri-Amplifier

Choose external bi-amplification or self-powered and networked, you can select the system configuration that meets your needs. Select the STX9 when the project dictates the use of external amplifiers and the self-powered PowerNet ST9R for convenience and control in other applications.

The PM-3R, the heart of the PowerNet ST9R is a new kind of intelligent electronic system. It combines Class D digital tri-amplification with RHAON, the Renkus-Heinz Audio Operations Network for comprehensive DSP controlled signal processing and con-



RHAON empowers you with CobraNet digital audio distribution, user configurable DSP for E M P O W E R E D maximum control, remote systems management

from any Windows computer, life safety functions and more - all using standard Ethernet hardware and cable.

The PM-3R 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.

# **ST/STX Series**

STX9

Non-Powered

High Power Quad 12" Lows CoEntrant M/H Driver 3-Way Complex Conic Loudspeakers

PASSIVE: POWERED: NETWORKED



• Compact 3-Way Design, Outstanding Performance Accurate full-range 40 Hz to 18 kHz high-level performance; 142 dB Peak SPL.

## Flexible Input Configurations

Choose external bi-amplification, or go self-powered with the PM3R PowerNet Tri-Amplifier with RHAON for flexible analog and multi-channel digital signal distribution, computer control and supervision.

#### Quad-12 Doublet Low Frequency Design

Provides superior low frequency directionality in both horizontal and vertical planes.

## Exclusive Complex Conic Design

Provides constant beamwidth/directivity without the problems of conventional rectangular horns.

### Patented CoEntrant Topology

Integrates the acoustic output of an 8" cone and a 1" HF driver into a wideband, high power true point source.

# TRAP (True Array Principle) Design

ST9/44ASR and STX9/44AS Models are true 40° TRAP modules that combine seamlessly to produce a phase aligned wave front virtually free of lobing. The /64 and /94 models can be turned into TRAP modules by rotating their horns 90°.

#### Choice of Coverage Patterns

Choose between tightly controlled 60° by 40°, 90° by 40° and asymmetrical 40° by 40° (+10°, -30°) coverage patterns.

#### **TECHNICAL INFORMATION**

Sensitivity

ST9Ř: 1.4 V for rated power output

STX9 (1W/1m): LF -101 dB, MF - 101 dB, HF - 109 dB ST

Max SPL (Pgm/Peak):

STX

139/142 dB

134/135 dB MF: 126/129 dB 126/129 dB HF: 128/130 dB 128/130 dB

Dispersion:

**ST9/44ASR & STX9/AS44:** 40° H by 40° V Asym. (+10°, -30°) **ST9/64R & STX9/64:** 60° H by 40° V

ST9/94R & STX9/94: 90° H by 40° V Freq. Response: 40 Hz to 18 kHz

Mid/High Drivers: CDT-2A; SSD3202S-8A 2" HF (75 W RMS) &

SSL10-5 10" MF (300 W RMS)

LF Drivers: Four 12" model SSL12-10 woofers;

3" VC; 400 W RMS (1600 W RMS total)

PM-3R AMPLIFIER

PWR Rating (Watts):

Lows: 850 RMS, 950 Pgm,1200 Peak(20 ms)

Mids: 425 RMS, 475 Pgm, 600 Peak(20 ms)

Highs: 175 RMS, 200 Pgm, 250 Peak(20 ms)

Freq. Response: +0.0, -.5 dB, 20 Hz to 20 kHz

**THD Distortion:** < 0.01 % typical

**CMR:** > 90 dB, 30 Hz to 2 kHz Hum & Noise: <100 dB, 20 Hz to 20 kHz)

Input Sensitivity: 1.4 V for RPO

Damping Factor: 135 (100 Hz to 400 Hz)

100 (400 Hz and abové)

Power:

Connector PowerCon locking connector

Requirements: 90/136 V AC or180/260 VAC, 50/60 Hz

9.6 Amps @ 120 V, 4.8 Amps @ 240 V

Idle Current: 380 mA @ 120 V, 190 mA @ 240 V

Max inrush

current (soft start): 14.5 Amps @ 120 V, 7.3 A @ 240 V

Crossover Points: 350 Hz & 1500 Hz

Power: STX9: Lows: 1600 Watts RMS at 4 Ohms

Mid/Highs: 300 Watts RMS at 8 Ohms

Enclosure: Multi-ply hardwood, perforated metal grille

Connectors: STX9: Neutrik 4-pin connectors or screw terminals

Finish: Black, white or custom paint, TuffTex,

Natural (unfinished), Weather resistant

Hardware Options: 12-point universal mtg hardware, Handles,

AeroQuip fly-track, R-Hang hardware

Dimensions: 50" H x 24" W x 32 1/4" D

(127 cm x 61 cm x 81.9 cm)

Weiaht

ST9R: 270 Lbs. (122.5 Kg) net

STX9: 232.5 Lbs (105.5 Kg) net

Inputs

Analog: Dual inputs; looping XLR (female in & Male out)

& Looping Phoenix connectors

CobraNet: Dual RJ 45 connectors (for redundancy)

AESid Format: AESid Format Serial Audio (AES/EBU input);

Phoenix connector

Controls: LF, MF, HF Mute buttons

Up & Down Output Level push buttons 10 dB Input pad (on Analog 1 input) Power On/Off, Push-To-Reset circuit breaker

Computer Controls: Gain, Mute, On/Standby, Input Selection;

Compression, 9-Band Parametric EQ, Shelving

& Rolloff Filters, Delay

Status Indicators: Power, Signal, Overdrive, Thermal, Mute,

Input Pad

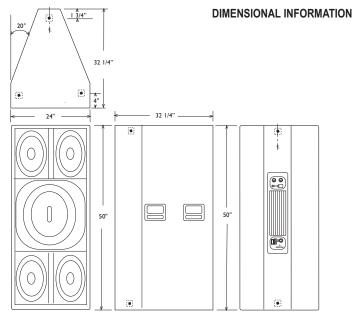
Protection: Soft & Peak Limiting, Excursion Control &

Thermal Regulation

Digital Format: 16, 20 or 24 bit PCM; 48 or 96 kHz sample rate;

selectable Network Latency

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



#### Note:

The UMH (Universal Mounting Hardware) attachment points have Metric M10 threads and are positioned 1 3/4" from the edges unless otherwise indicated.

Portable models are normally supplied with handles and no attachment points.

The rear view of a ST9R 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.

