



Design Without Boundaries - Performance Without Limits

Loudspeakers; amplifiers; signal processors; audio and control networks. SYGMA brings them all together to create a new kind of sound system, a new level of performance. World-class European transducers are paired with our advanced Complex Conic horns for audiophile reproduction that makes performances and audiences truly come alive. PF-1 Series Intelligent Digital Amplifiers can connect to RHAON, the Renkus-Heinz Audio Operations Network. RHAON gives you complete control of digital audio distribution, loudspeaker processing and system management.

The global SYGMA development and manufacturing process delivers unsurpassed quality and innovation, for performance and style that will make you proud and durability that will keep you sounding great. Custom colors, weather resistant treatment and Omnimount mounting hardware are available as options.

Applications

Virtually any installation where size is a critical issue and outstanding sonic performance is required.

- Ideal for fills, delays and effects in both distributed and playback systems in:

Churches	Board rooms
Theaters	Malls
Performing Arts Centers	Transportation Venues
Schools	Retail Environments
Sports venues	

PF Series Intelligent Amplifiers



Passive, bi-amped, powered or networked: you can choose the SG/SGX system that suits your needs at any time. At the factory or in the field, the SGX connector plate can be easily switched from passive to bi-amp or replaced by a PF1-200 series Class D digital amplifier with loudspeaker specific processing. The PF1-200's lightweight switching power supply delivers 70% efficiency at full output, reducing AC requirements and eliminating the need for a cooling fan.

RHAON Whenever you are ready for Ethernet audio networking, your Sygma loudspeakers are, too; just replace the connector plate or the PF1-200 with a RHAON empowered amplifier equipped for connection to the Renkus-Heinz Audio Operations Network. RHAON empowers you with full control over digital audio distribution, loudspeaker-specific DSP and control/monitoring – all using standard Ethernet hardware and cable.

Ready now for a self-powered Sygma System? order the SG61-2. If you need full audio operations networking, order the RHAON empowered SG61-2R.

SG /SGX Series

SGX61
Non-Powered



SG61
Powered

Compact 6 1/2" + 1" HF 2-Way Complex Conic Loudspeakers

PASSIVE : POWERED : NETWORKED



- **High Volume Output, Small Enclosures**
80 Hz to 20 kHz ±3 dB: Outstanding, full-range performance in an extremely compact, space-saving design.
- **Flexible Input Configurations**
Choose passive or bi-amp inputs, or go self-powered with the PF1-200 series intelligent amplifier, either with or without RHAON.
- **RHAON Renkus-Heinz Audio Operations Network**
Self-Powered SG61 cabinets are easily connected to RHAON for flexible digital signal distribution, loudspeaker management and control using standard Ethernet hardware and cabling.
- **Exclusive 150° by 60° 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.
- **1" Extended Range Titanium HF Driver**
Provides smooth, low distortion high frequency performance to 20 kHz and beyond.
- **Heavy-Duty 6.5" Woofer**
Easily handles 120 Watts of program power.

TECHNICAL INFORMATION

Sensitivity
SG61-2 & -2R: 1.0 V for RPO
SGX61: 91 dB (1W/1m)

Maximum SPL
SG61-2 & -2R: 115 dB peak
SGX61: 115 dB peak

Dispersion: 150° H by 60° V

Freq. Resp: ± 3 dB, 80 Hz to 20 kHz

HF Driver: 1" Titanium driver, model SSD103-8;
 15 W RMS, 30 W program

LF Driver: 6.5" woofer, model SSL6.5-12;
 60 W RMS, 120 W program

Enclosure: 13-ply hardwood, perforated metal grille

Power: 200 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 RP
CMR: 74 dB

PF1-200 AMPLIFIER

Power
SG61-2 & -2R: 115 V AC OR 230V AC
SGX61: 120 Watts program at 16 Ohms

Connectors
SG61-2 & -2R: See PF1-200 Amplifier
SGX61: Screw terminals & looping 4-pin Neutrik SpeakOn style connectors

Finish: Black or white paint; custom colors and weather resistant treatment available

Hardware: 12-point univ. mtg. hdw.
 U-bracket attachment points
 Omnimount mounting hardware available

Dimensions: 16" H x 9 1/2" W x 11 1/4" D
 (40.6 cm x 24.1 cm x 28.6 cm)

Weight
SG61-2 & -2R: 23.62 Lbs (10.71 Kg) net
SGX61: 21.62 Lbs (9.8 Kg) net

Controls: Gain (screwdriver adjustable)

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

Power: Universal 90–260 VAC, 50/60Hz.
 2.4 A @ 120 V, 1.2 A @ 240 V
 Idle current: 200 mA @ 120 V;
 100 mA @ 240 V
 Max inrush current: 1 A

PF1-200R RHAON EMPOWERED AMPLIFIER

The PF1-200R is identical to the PF1-200 except for the addition of the RHAON Network Interface; additional capabilities include:

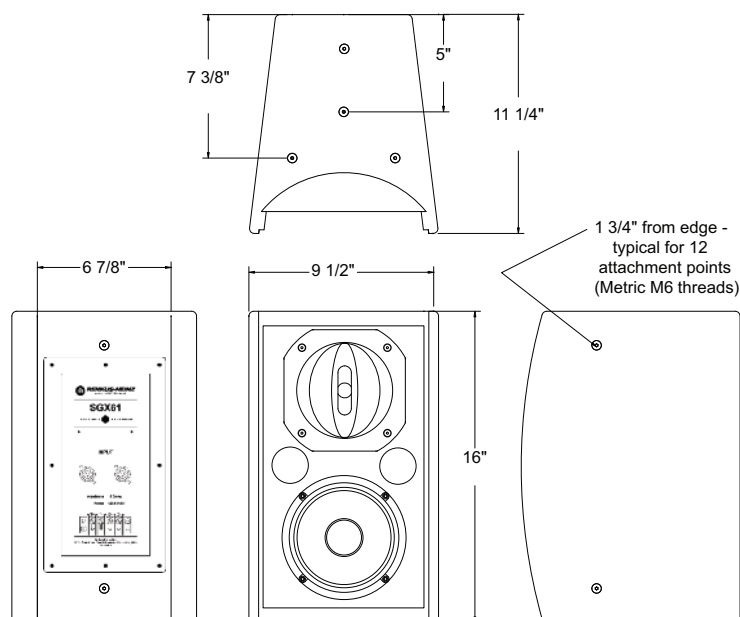
Input: CobraNet; dual RJ45 connectors; accept Cat 5 copper cable.
 AES/EBU Phoenix connectors;
 Analog Phoenix connectors

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

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



SYGMA

Note:

The UMH (Universal Mounting Hardware) attachment points have Metric M6 threads and are positioned 1 3/4" from the edges unless otherwise indicated.

The rear view of a SGX61 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