



## Design Without Boundaries - Performance Without Limits

Loudspeakers; amplifiers; signal processors; signal distribution 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. SG1 Series Intelligent Digital Amplifiers can connect SG Series systems to RHAON, the Renkus-Heinz Audio Operations Network, for digital audio distribution, loudspeaker management and system monitoring.

The global SYGMA development and manufacturing process delivers unsurpassed quality and innovation. Before we'll ship them, your loudspeakers have to meet our exacting requirements, for performance and style that will make you proud and durability that will keep you sounding great.

### Applications

- Developed specifically for in-wall mounting in stair risers and stage lips.
- Ideal for many side and front fill applications; mounts inconspicuously in walls or ceilings, under and over balconies, etc.
- Foreground music systems in shopping malls, retail stores, offices, Etc.

### High Performance, High Output, In-Wall Design

The SG42 and SGX42 were developed specifically for the multitude of applications needing full-size performance from a compact loudspeaker that could be easily mounted in stair treads, walls and ceilings.

### SG1-200 Intelligent Amplifier

All SG42 SYGMA loudspeakers are equipped with an SG1-200 Class D Digital amplifier/signal processor that combine amplification, crossover, protection and equalization into a single compact unit. Powered by a switching power supply, the IC1-200 amplifier is light weight and over 70% efficient at full output. Its high efficiency reduces power requirements and eliminates the need for fan cooling.

Non-powered SGX42 loudspeakers can easily be upgraded to self-powered SG42 loudspeakers by replacing the connector plate with a SG1-200 amplifier module.



## SG / SGX Series

**SGX42**

Non-Powered

**SYGMA**

**SG42**

Powered

### Dual 4" + 1" HF 2-way Stairstep Loudspeakers



- **High Volume Output, Small Enclosure**  
300 Hz to 20 kHz  $\pm 3$  dB: Outstanding, full-range performance in a space saving "in-wall" design.
- **Wide-Angle 150° by 60° Coverage**  
High frequency diffraction slot provides smooth 150° by 60° coverage.
- **1" Extended Range Titanium HF Driver**  
Provides smooth, low distortion high frequency performance to 20 kHz and beyond.
- **Dual Heavy-Duty 4" Woofers**  
Easily handle 240 Watts of program power.
- **Heavy 18 Gauge Metal Back Box**  
Optional 18 gauge metal backbox is "concrete pour" ready.
- **Built-in Crossover**  
Eliminates need for a separate electronic crossover and bi-amplification.

## TECHNICAL INFORMATION

### Sensitivity

**SG42:** 1.0 V for RPO  
**SGX42:** 95 dB (1W/1m)

### Maximum SPL

**SG42:** 119 dB program, 122 dB peak  
**SGX42:** 119 dB program, 122 dB peak

**Dispersion:** 150° H by 60° V

**Freq. Resp:**  $\pm 3$  dB, 300 Hz to 20 kHz

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

**LF Drivers:** Dual 4", model SSL4-1; 4" Woofers;  
 60 W RMS, 120 W program each.

**Enclosure:** Hardwood with perforated metal grille

**Back Box:** 18 ga. CRS w/black powder coat.

### Power

**SG42:** 115 V AC OR 230V AC  
**SGX42:** 240 Watts program at 16 Ohms

### Connectors

**SG42:** See SG1-200 Amplifier  
**SGX42:** Screw terminals & looping 4-pin Neutrik SpeakOn style connectors

**Finish:** Black or white paint

### Dimensions

**Enclosure:** 5 1/4" H x 16 5/8" W x 9 5/8" D  
 (13.3 cm x 42.2 cm x 24.4 cm)

**Back Box:** 5 5/8" H, x 16 7/8" W x 13 3/16" D  
 (14.2 cm x 43 cm x 33.5 cm)

### Weight

**SG42:** 18.76 Lbs (8.5 Kg) net  
**SGX42:** 16.76 Lbs (7.6 Kg) net

## SG1-200 AMPLIFIER

**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

**Controls:** Gain (screwdriver adjustable)

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

**Power:** IEC Power connector

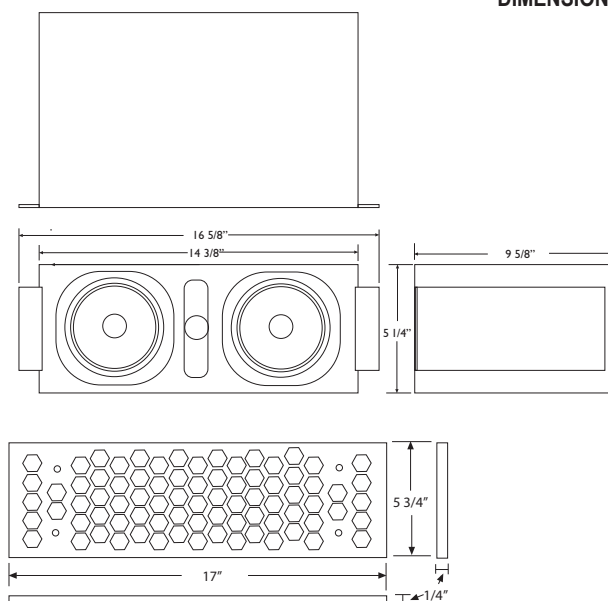
**Power Requirements:** Universal 90–260 VAC, 50/60Hz.  
 2.4 A @ 120 V, 1.2 A @ 240 V

**Idle Current:** 200 mA @ 120 V;  
 100 mA @ 240 V

**Max Inrush Current:** 1 A

Note: All analog inputs and outputs comply with AES Standard 45-2005 on interconnecting, grounding and shielding.

## DIMENSIONAL INFORMATION



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

