## RS4-EZ

## **Open-Celling Speaker**

Technical Information for System Engineers





### Specifications: RS4-EZ

System Type	4" Full-range, open-ceiling, ported (20 Watt transformer for 25/70.7/100 Volt or voice coil/80hm applications)
Frequency Response (- 3 dB) <sup>1</sup>	94 Hz - 13 kHz
Low Frequency (-10 dB) <sup>1</sup>	69 Hz - 22 kHz
Max. Program Power	40 Watts
Max. Continuous Power <sup>2</sup>	20 Watts
Max. SPL dB @ 1 M	104.5 dB
Sensitivity dB @ 1W/1M <sup>3</sup>	91.5 dB (average over published frequency response range, 2.83V)
Impedance (nominal)	8 Ohm (nominal)
Tap Selector / Inputs	5-Position rotary switch with voice coil direct (8 Ohm)
Coverage Angle (-6 dB @ 2 kHz)	160°
Directivity Factor (Q)	6.66 (Averaged 100 Hz - 10 kHz); 3.52 @ 2 kHz
Directivity Index (DI)	6.80 dB (Averaged 100 Hz - 10 kHz); 5.47 dB @ 2 kHz
Transformer Taps	

70.7 V	Output	100 V	Output	25 V	Output
20 W	104.5 dB	20 W	104.5 dB	2.5 W	95.5 dB
10 W	101.5 dB	10 W	101.5 dB	1.25 W	92.5 dB
5 W	98.5 dB	5 W	98.5 dB	0.63 W	89.5 dB
2.5 W	95.5 dB			0.31 W	86.5 dB

Transducer			
Low-Frequency Driver	1 x 101 mm (4.0 in) Extended-range paper cone,		
	treated cloth surround		
Enclosure Material	Injection molded ABS, glass fiber reinforced		
Grille	Iridite-plated, steel with powder-coat finish		
Inputs	4 Pin, 5 mm Euroblock for individual or daisy chain connection		
Color Options	Black or white		
Diameter	197 mm / 7.7 in		
Total Height	224 mm / 8.8 in		
Weight	1.8 KG / 3.9 lbs		
Shipping Weight	3.1 hG/6.8 lbs		
Accessories			
Included	Hanging hardware, Euroblock connector & terminal weather boot		
Optional	N/A		
Packaging	1 Per box		

SoundTube continually develops new product innovations and improvements. Updates to existing products without prior notice are an example of SoundTube's drive for constant improvement.

### **Key Features**

- One 101 mm (4 in) full-range, treated fiber driver mounted to an ABS baffle.
- Weatherized components for indoor & outdoor applications.
- Includes hanging hardware with aircraft cables and integrated SpeedClamp<sup>™</sup> self-locking wire grip for fast, easy & secure installation. Also includes Euroblock connector & terminal weather boot.
- Patented ZeroReflection<sup>™</sup> enclosure technology for optimal sound reproduction & cabinet rigidity.
- Easy access 5-position selectable tap switch for 25, 70.7 and 100 Volt applications with voice coil/8 Ohm direct simplifies ordering & inventory tracking.
- Iridite-plated steel grille with protective powder-coated finish for lasting durability.
- 91.5 dB average sensitivity offers highoutput capabilities & reduced amplification costs.
- High-quality black or white paint finish.

### Description

The RS4-EZ is a 4.0" extended-range ported speaker with an open-ceiling enclosure design. Hanging hardware is included and features SpeedClamp™ self-locking wire grip for fast, easy and secure installation. SoundTube's customengineered driver and electro-acoustic network delivers high-performance sound in a cost-effective speaker design. The RS4-EZ speaker incorporates a low-profile grille and a 5-position tap switch with voice coil/8 Ohm direct.

### **Applications**

Designed for indoor and outdoor background to mid-level SPL applications, the RS4-EZ includes a single-point mounting system for rapid open-ceiling installations. Cost-effective engineering with high-performance sound makes the RS4-EZ speaker ideal for music & paging applications in retail, grocery stores, restaurants, hotels, casinos, museums, trade shows and conference rooms. For applications where additional bass is required, SoundTube's RS801i 8" subwoofer provides bass down to 40 Hz.

<sup>&</sup>lt;sup>1</sup> Frequency response is measured in full space and includes a low-frequency peak > + 3 dB.

<sup>&</sup>lt;sup>2</sup> Continuous power rating, EIA-426-B test.

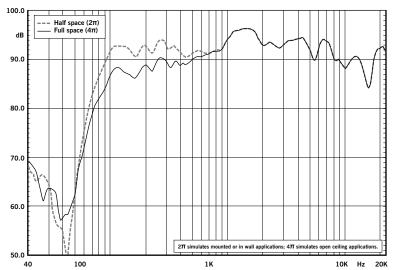
<sup>&</sup>lt;sup>3</sup> 2.83 Volts at a distance of 1 meter.

## **Open-Celling Speaker**

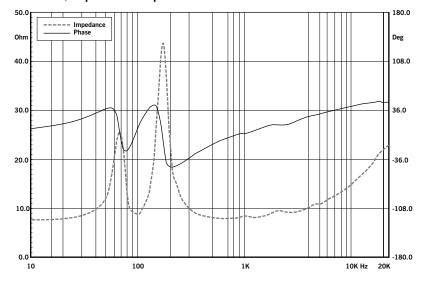
Technical Information for System Engineers



### Frequency Response



### Phase/Impedance Reponse



## Patented SoundTube Technologies

SoundTube Entertainment is constantly developing new technologies that enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. and international patents, which explicitly cover SoundTube dispersion, enclosure and dome technologies. SoundTube Entertainment actively defends its patents in order to protect SoundTube resellers and end users.

## Technical Data and Specification Tools

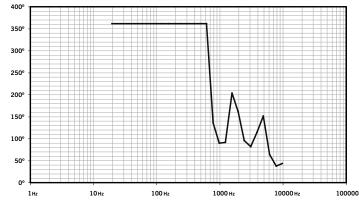
### **Technical Data**

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment or at www.soundtube.com.

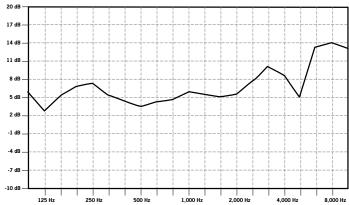
#### **Data Acquisition**

All performance data acquired at SoundTube's Technical Measurement Center (TMC) are analyzed using a variety of standard measurement techniques, including Measured Length

## Beamwidth (-6 dB)



### **Directivity Index (DI)**





Sequence (MLS) and Time Delay Spectrometry (TDS). Performance, development and data acquisition tools include: Gold Line TEF 20, CLIO, LMS, LEAP, and proprietary modeling software. EASE™ data are acquired through an automated TEF 20/Outline/EASE™ interface.

**EASE™ Data** – 3-D polar plots.

**SoundTubeSPEC™** – Proprietary SoundTube speaker placement software.

## **Architectural Specifications**

The loudspeaker shall consist of a 101 mm (4 in) full range driver.

Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 69 Hz – 22 kHz (-10 dB, half space, no external equalization). Measured sensitivity (2.83 Volt input, 1 meter) shall be at least 91.5 dB. The speaker shall have a nominal impedance of 8 Ohms and be available for 25, 70.7 & 100 Volt modes with voice coil/8 Ohm direct. Rated power capacity shall be at least 20 Watts continuous power (RMS) and conform to EIA-426-B

testing. Maximum continuous output at 1 meter shall be 104.5 dB.

The transducer shall have a treated fiber cone with a treated cloth surround and mated to an ABS baffle.

Installation and safety attachment for the RS4-EZ shall be by aircraft cable affixed to the speaker chassis via an integrated forged aluminum clasp with safety gate. The external wiring input connector shall be a 4-pin, 5 mm Euroblock for 8 Ohm or distributed systems and shall accept from 10 – 22 gauge wire. The system shall be for indoor & outdoor applications and shall have a weather-resistant terminal boot covering all wire connectors.

The enclosure shall be constructed of injection-molded ABS. The grille shall be constructed of iridite-plated, powder-coated steel for lasting performance in the elements. Overall cabinet dimensions shall be no more than 197 mm (7.7 in) in height by 224 mm (8.8 in) in diameter. The RS4-EZ shall weigh no more than 1.8 kG (3.9 lbs) and shall include hanging hardware, Euroblock connector and weather-resistant terminal boot.

The system shall be the SoundTube RS4-EZ with hanging hardware for both low and high impedance applications.

### SoundTube Entertainment

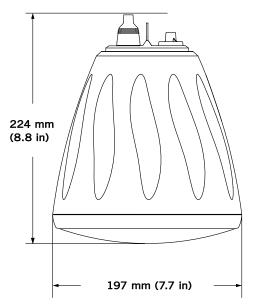
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All SoundTube products come with a 5-year limited warranty.

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### **Mechanical Drawings**



### **Included Accessories**



Hanging Hardware: Main & Safety Cables w/ SpeedClamp™

SoundTube's hanging cable kit incorporates hanging & safety cables & Speed-Clamp™ self-locking cable clamps for an integrated and easy-to-install system. Hanging & safety cables are infinitely adjustable to 2.74 M (9.0 ft).