

HP890i PRODUCT SPECIFICATIONS

System Type	8", two-way, high-power, open-ceiling, ported (120 W transformer for 25, 70.7, and 100 V or transformer bypass)
Impedance (Nominal) ¹	8 Ω
Sensitivity dB @ 2.83 V / 1 M	94 dB
Sensitivity dB @ 1 W / 1 M ²	94 dB
Frequency Response (±3 dB) ³	93 Hz - 22 kHz
Frequency Response (±10 dB) ³	65 Hz - 22 kHz
Max. Program Power ⁴	250 W
Max. Continuous Power RMS ⁵	125 W
Max. Power SPL @ 1 M ⁶	115 dB
Coverage Angle (±6 dB @ 2 kHz)	130°
Coverage Angle (±6 dB @ 10 kHz)	85°
Coverage Angle (Avg. 2-10 kHz)	115°
Directivity Factor (Q)	4.2 (Avg. 100 Hz - 10 kHz) 3.5 (2 kHz)
Directivity Index (DI)	5.4 dB (Avg. 100 Hz - 10 kHz) 5.4 dB (2 kHz)
Tap Selector	Five-position rotary switch with transformer bypass position
Transducer: Low-Frequency Driver	203 mm (8") treated paper cone, cloth surround
Transducer: High-Frequency Driver	36 mm (1.42") titanium compression driver with waveguide
Low-Frequency Voice Coil	34 mm 1.34"
Crossover Frequency	2.5 kHz
Network Type: Low Pass	12 dB per octave, 2nd order
Network Type: High Pass	12 dB per octave, 2nd order
Enclosure Material	Injection molded ABS, glass fiber reinforced
Grille	Steel with powder-coat finish
Inputs	4-pin, 5.08 mm Euroblock for individual or daisy chain connection
Height	437.6 mm 17.2"
Diameter	376.4 mm 14.8"
Weight	12.2 kg 16.9 lbs
Shipping Weight	14.7 kg 32.3 lbs
Packaging	One per box
Included Accessories	Hanging hardware, Euroblock connector and terminal weather boot
Optional Accessories	Surface mount bracket (AC-RS-SM8)
Certifications	CE, RoHS, UL 2239, UL 1480A

¹ Impedance listed per IEC 60268-5 with a minimum less than 80% the nominal impedance

² 1 W/1 M sensitivity determined using nominal impedance

³ Frequency response measured in half or full space as dictated by speaker mounting configuration

⁴ Max program power is 3 dB above max continuous power

⁵ Continuous power rating, EIA-426-B test

⁶ Max output based on max continuous power



Description

The HP890i is a premium 8", two-way, ported, high-efficiency, high SPL loudspeaker for distributed or 8 Ω applications. The HP890i incorporates a dedicated 8" treated fiber driver and high-power compression transducer with a BroadBeamHP® waveguide to deliver a consistent dispersion pattern and superb intelligibility for the foreground music, sound reinforcement and PA markets.

The HP890i incorporates a 120 W transformer bypass position. Hanging hardware is included and features a fast-action SpeedClamp™ for easy and secure installation.

Features

- Patented BroadBeamHP® waveguide technology delivers a consistent dispersion pattern for maximum intelligibility and edge-to-edge coverage (2-8 kHz, independently verified)
- One 8" (203 mm) treated fiber woofer and one 1.42" (36 mm) compression driver (1" exit) mounted to a proprietary cast-aluminum baffle and heat sink
- Weatherized components for indoor/outdoor applications
- High output (115 dB) and 120 W transformer for the sound reinforcement and PA markets
- Patented ZeroReflection™ enclosure technology for optimal sound reproduction and cabinet rigidity
- Easy-access, five-position selectable tap switch for 25, 70.7, and 100 V applications with transformer bypass position
- Includes hanging hardware with galvanized steel cables and integrated SpeedClamp™ self-locking wire grip for fast, easy and secure installation. Also includes Euroblock connector and terminal weather boot
- Average sensitivity of 94 dB offers high output capabilities and reduced amplification costs
- UL 1480A and UL 2239 (hanging cable) approved
- High quality black or white paint finish. Custom paint colors optional
- Optional accessory: surface-mount bracket (AC-RS-SM8)

Transformer Taps

70.7 V	Output	100 V	Output	25 V	Output
120 W	115 dB	120 W	115 dB	15 W	106 dB
60 W	112 dB	60 W	112 dB	8 W	103 dB
30 W	109 dB	30 W	109 dB	3.8 W	100 dB
15 W	106 dB			1.9 W	97 dB

Applications

Engineered for installation requiring full-range background/foreground music plug paging, the HP890i delivers a smooth and even coverage pattern. Ideal for warehouses, gyms, aerobic rooms, airports, super stores, arenas, theme parks, transportation hubs, shipping centers, stadiums and other high SPL or long-throw applications. For applications where additional bass is required, SoundTube's RS1001i-II-T 10" subwoofer may be used with bass down to 38 Hz.

Patented Technologies

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

BroadBeamHP® Wide Dispersion Technology

SoundTube's proprietary BroadBeamHP technology incorporates a high-frequency compression driver with a 1" exit mated to a treated fiber woofer. BroadBeamHP technology delivers a consistent dispersion pattern across the upper registers of the frequency spectrum (2-8 kHz, independently verified). The result is an audio system requiring fewer speakers with higher intelligibility, offering reduced power needs, shorter installation time and cost savings on shipping and labor.

Technical Data and Specification Tools

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

Technical data and downloads include:

- EASE™ data - 3-D polar plots.
- EASE™ Address - 2-D modeling for distributed systems
- AutoDesk® Revit® software
- Tech Sheets - technical information and architectural specs for system engineers
- SoundTubeSPEC™ - Proprietary speaker placement software

Independent Data Acquisition and Verification

All data for SoundTube speakers is independently collected from and verified by NWAALabs (www.nwaalabs.com) using their proprietary MACH testing system. All data is collected and analyzed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

Architectural Specifications

The loudspeaker shall consist of a 203 mm (8") low-frequency transducer and a 36 mm (1.42") high-frequency compression driver (1" exit) with a BroadBeamHP waveguide and a crossover network installed in the ported enclosure. The low-frequency voice coil diameter shall be 34 mm (1.34").

Performance specifications of a typical production unit shall be as follows: Usable frequency range shall extend from 65 Hz - 22 kHz (± 10 dB). Measured sensitivity (2.83 V, 1 M) shall be at least 94 dB. The speaker shall have a nominal impedance of 8 Ω . The speaker shall be available for 25, 70.7, 100 V modes and shall include a five-position tap switch with a transformer bypass position. The frequency dividing network shall have a crossover frequency of 2.5 kHz with slopes of 12 dB per octave (2nd order) for the low and high-pass filter. Rated power capacity shall be at least 125 W continuous RMS and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be at least 115 dB.

The low-frequency transducer shall have a treated fiber cone with cloth surround. The high-frequency transducer shall be a compression driver with a 1" exit.

Installation for the speaker shall be by galvanized steel cable affixed to the speaker chassis via an integrated snap hook. For safety redundancy, a secondary cable shall be included. The external wiring input connector shall be a four-pin, 5.08 mm Euroblock for 8 Ω or distributed systems and shall accept 10 - 22-gauge wire. The unit shall be for indoor and outdoor applications and have a weather-resistant boot covering all wire connectors.

The enclosure shall be constructed from injection molded, glass-reinforced ABS. The grille shall be constructed of powder-coated steel for lasting performance in the elements. Overall cabinet dimensions shall be no more than 437.6 mm (17.23") in height by 376.4 mm (14.82") in diameter and weigh no more than 12.2 kg (26.8 lbs). The unit shall include hanging hardware, Euroblock connector and weather-resistant terminal boot.

The system shall be the SoundTube HP890i with hanging hardware for both low and high impedance applications.

SoundTube®

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Phone: 913.663.5600

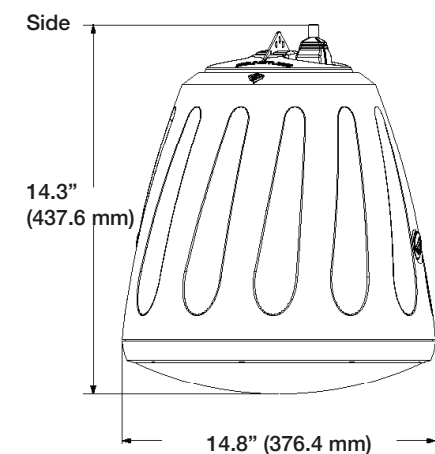
Fax: 913.663.3200

Toll Free: 855.663.5600

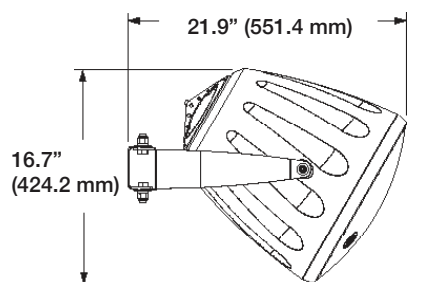
www.soundtube.com

All SoundTube speakers come with a 5-year limited warranty and 3-year warranty on all electronics.

Mechanical Drawings



Optional Accessories



Surface-Mount Bracket
(AC-RS-SM8)

Included Accessories

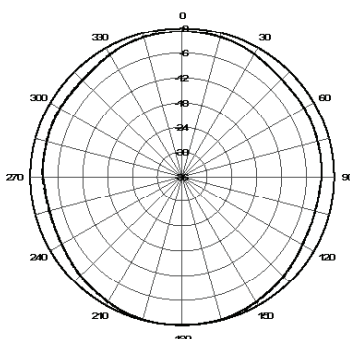


Hanging Hardware: Main and Safety Cables w/ SpeedClamp™

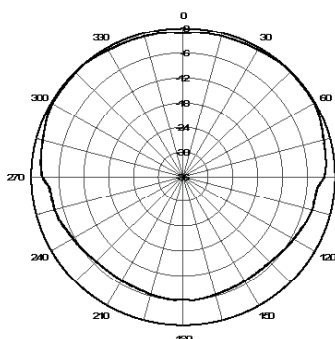
SoundTube's hanging cable kit incorporates hanging and safety cables and fasteners for an integrated and easy-to-install system. Hanging and safety cables are infinitely adjustable to 2.74 m (9').

Plots

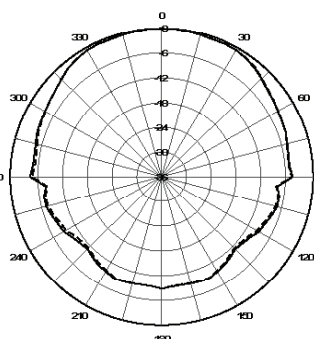
125 Hz



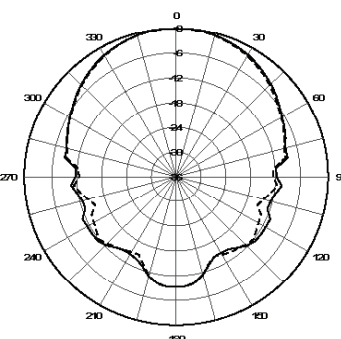
250 Hz



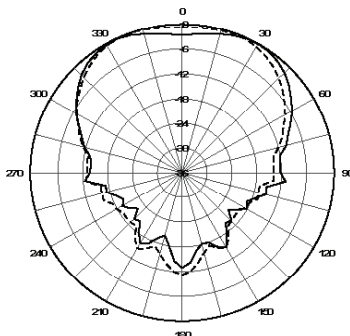
500 Hz



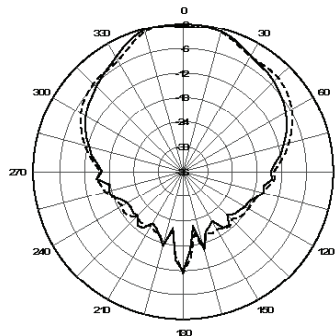
1,000 Hz



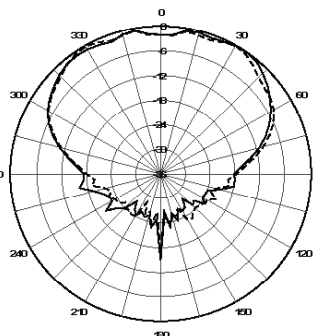
2,000 Hz



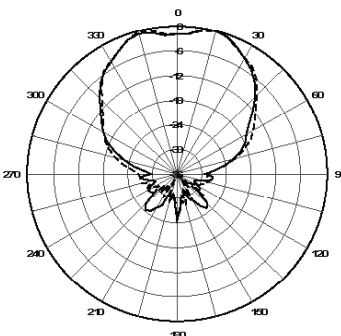
4,000 Hz



8,000 Hz

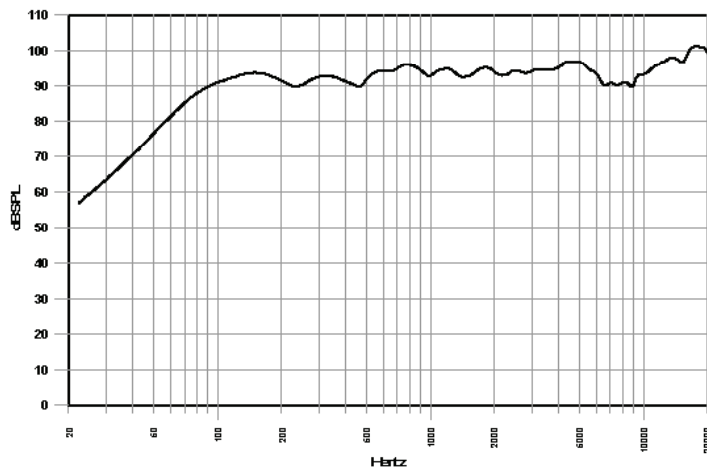


10,000 Hz

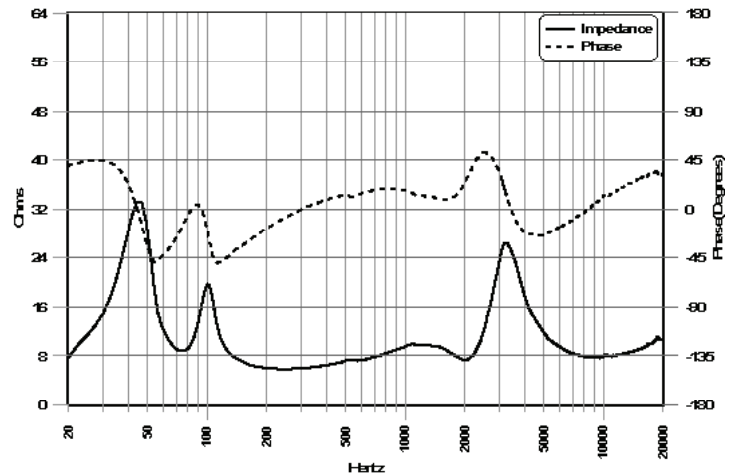


Graphs

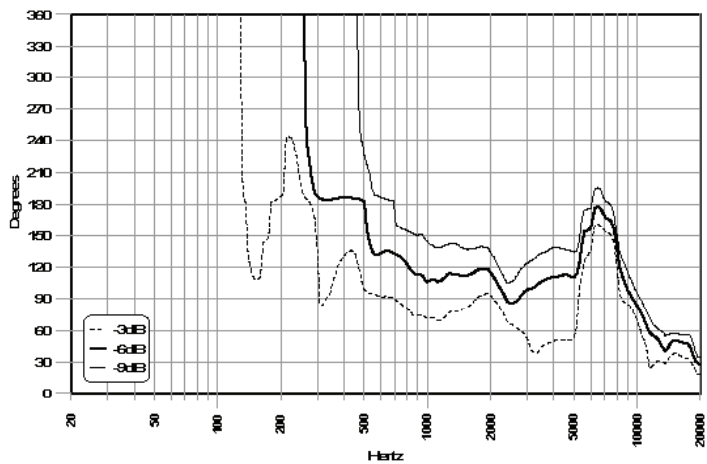
Frequency Response



Phase/Impedance Response



Vertical Beamwidth



Directivity Index (DI)

