



### Description

The HP82-EZ is an 8", coaxial speaker designed for open-ceiling applications. Hanging hardware is included and features a built-in hanging bracket and screw on the cover plate for fast, easy and secure installation. The unit may be mounted direct-to-conduit via the locking cover plate (see installation instructions for additional information). The HP82-EZ speaker incorporates 4-position ceramic terminal block input connector and a 6-position tap switch with transformer bypass information.

### HP82-EZ PRODUCT SPECIFICATIONS

System Type	8" coax, open-ceiling, high SPL, ported (64 W transformer for 25, 70.7, 100 V or voice coil direct)
Impedance (Nominal) <sup>1</sup>	16 $\Omega$
Sensitivity dB @ 2.83 V / 1 M	90 dB
Sensitivity dB @ 1 W / 4 M	81dB
Sensitivity dB @ 1 W / 1 M <sup>2</sup>	93 dB
Frequency Response ( $\pm 3$ dB) <sup>3</sup>	110 Hz - 22 kHz
Frequency Response ( $\pm 10$ dB) <sup>3</sup>	80 Hz - 22 kHz
Max. Program Power <sup>4</sup>	128 W
Max. Continuous Power RMS <sup>5</sup>	64 W
Max. SPL dB @ 1 M <sup>6</sup>	111 dB
Max. SPL dB @ 4 M	98.9 dB
Coverage Angle (Horizontal) @ $\pm 6$ dB	500 Hz: 156°   1 kHz: 98°   2 kHz: 96°   4 kHz: 81°
Coverage Angle (Vertical) @ $\pm 6$ dB	500 Hz: 154°   1 kHz: 99°   2 kHz: 88°   4 kHz: 82°
Tap Selector	6-position rotary switch with transformer bypass (see image 1.0)
70.7 Volt Transformer Taps	64W: 111dB   32W: 108dB   16W: 105dB   8 W: 102dB   4W: 99dB
100 Volt Transformer Taps	64W: 111dB   32W: 108dB   16W: 105dB   8W: 102dB
25 Volt Transformer Taps	8W: 102dB   4W: 99dB   2.0W: 96dB   1W: 93dB   0.5W: 90dB
Transducer: Low-Frequency Driver	203 mm (8") Treated Paper Cone Cloth Surround
Transducer: High-Frequency Driver	19 mm (0.75") Titanium Compression Driver with Waveguide™
Low-Frequency Voice Coil	38 mm   1.5"
Crossover Frequency	2.5 kHz
Network Type: Low Pass	6 dB per octave, 1st order
Network Type: High Pass	6 dB per octave, 1st order
Enclosure Material	Injection molded ABS, glass fiber reinforced
Grille	Powder-coated aluminum
Inputs	4-position ceramic terminal connector
Height	327.7 mm   12.9"
Diameter	325.9 mm   12.83"
Weight	6.35 kg   14 lbs
Shipping Weight	7.5 kg   16.5 lbs
Packaging	One per box
Included Accessories	Hanging hardware, weather plug, cover plate
Certifications	CE, RoHS, UL 1480A, UL 2239, EN54

### Features

- One 8" (203 mm) high power coaxial driver with BroadBeamHP Ring™ technology for high frequency dispersion.
- Weatherized components for indoor and outdoor applications.
- Includes hanging hardware with galvanized steel cables and hanging bracket for fast, easy and secure installation. Unit may be hung or mounted direct-to-conduit via locking cover plate.
- Enclosure constructed of injection molded ABS with glass fiber reinforcement for lasting durability in indoor or outdoor applications.
- Easy access six-position rotary switch for 25-, 70.7- and 100-volt applications with transformer bypass position.
- Aluminum grille with protective powder-coated finish.
- Built-in thermal fuse.
- Unit ships in eco-friendly, recyclable packaging.
- High-quality black or white paint finish. Speaker is paintable.
- Included accessories: hanging hardware, weather plug, cover plate.

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

<sup>2</sup> 1 W/1 M sensitivity determined using nominal impedance

<sup>3</sup> Frequency response measured in half or full space as dictated by speaker mounting configuration

<sup>4</sup> Max program power is 3 dB above max continuous power

<sup>5</sup> Continuous power rating, EIA-426-B test

<sup>6</sup> Max output based on max continuous power

The specifications data was measured in an anechoic chamber, according to EN 54-24.

Reference axis: Axis is on the center of speaker grille and perpendicular to the speaker grille.

Reference plane: Plane is on the speaker grille and perpendicular to the reference axis.

Horizontal plane: Plane is containing the reference axis and perpendicular to the reference plane.

## Transformer Taps

70.7 V	Output	100 V	Output	25 V	Output
64 W	111 dB 78 Ω	64 W	111 dB 156 Ω	8 W	102 dB 78 Ω
32 W	108 dB 156 Ω	32 W	108 dB 313 Ω	4 W	99 dB 156 Ω
16 W	105 dB 313 Ω	16 W	105 dB 625 Ω	2 W	96 dB 313 Ω
8 W	102 dB 625 Ω	8 W	102 dB 13 K Ω	1 W	93 dB 625 Ω
4 W	99 dB 13 K Ω			0.5 W	90 dB 13 K Ω

## Applications

Designed for superior off-axis performance and easy installation, the HP82-EZ offers attractive styling in an economical speaker for open-ceiling uses. Cost-effective engineering with high-performance sound makes the HP82-EZ speaker ideal for music and paging applications in retail, grocery stores, restaurants, hotels, casinos, museums, trade shows and conference rooms. For applications where additional bass is required, SoundTube's RS1001i-II-T 10-inch subwoofer may be used.

## Patented Technologies

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

## Technical Data and Specification Tools

SoundTube strives to provide complete and effective technical information and data to dealers, engineers and designers. All data is available online at [www.soundtube.com](http://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](http://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 one 203 mm (8") low frequency driver and one 19 mm (0.75") high frequency driver. The low frequency voice coil diameter shall be 38.0 mm (1.5").

Performance specifications for a typical production unit shall be as follows: usable frequency response shall extend from 80 Hz - 22 kHz ( $\pm 10$  dB). Measured sensitivity (2.83-volt input, 1 meter) shall be at least 89 dB. The speaker shall have a nominal impedance of 16 Ω. The speaker shall be available for 25-, 70.7- and 100-volt modes and shall include a six-position tap switch with a transformer bypass position. Rated power capacity shall be at least 64 watts continuous (RMS) and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be 110 dB.

The low frequency transducer shall have a polypropylene cone with a butyl rubber surround. The high frequency transducer shall have a silk dome tweeter with BroadBeam Ring™ technology.

Installation shall be by galvanized steel cables attached to the speaker chassis via fixed cable end that interlocks with integrated mounting bracket. The external wiring input connector shall be a four-position ceramic terminal block for low impedance or distributed systems and shall accept from 10 - 22-gauge wire. The system shall be for indoor and outdoor applications and shall have a weather-resistant plug protecting all wire connectors inside the cover plate.

The enclosure shall be constructed of injection-molded ABS. The grille shall be constructed of powder-coated aluminum for lasting performance in the elements. Overall cabinet dimensions shall be no more than 327.7 mm (12.9") in height by 325.9 mm (12.83") in diameter. The unit shall weigh no more than 6.35 kg (14.0 lbs) and shall include hanging hardware and weather-resistant cover plate plug.

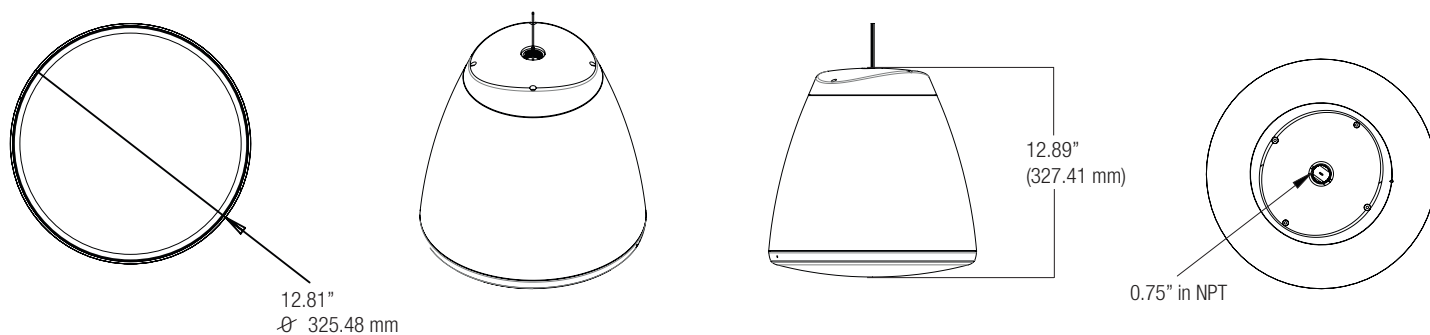
The system shall be the SoundTube HP82-EZ with hanging hardware for both low and high impedance applications.

## SoundTube®

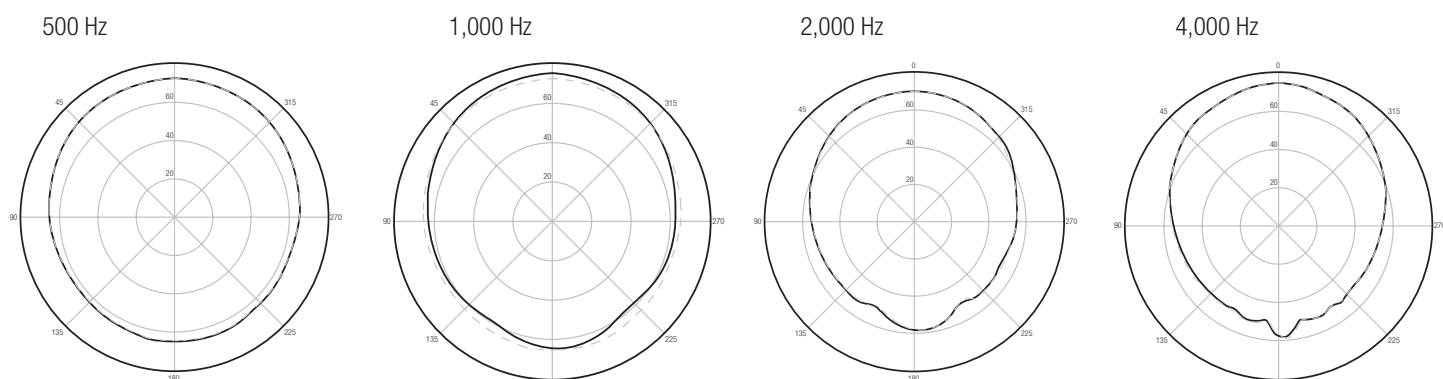
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All SoundTube speakers come with a 5-year limited warranty and 3-year warranty on all electronics.

## Mechanical Drawings

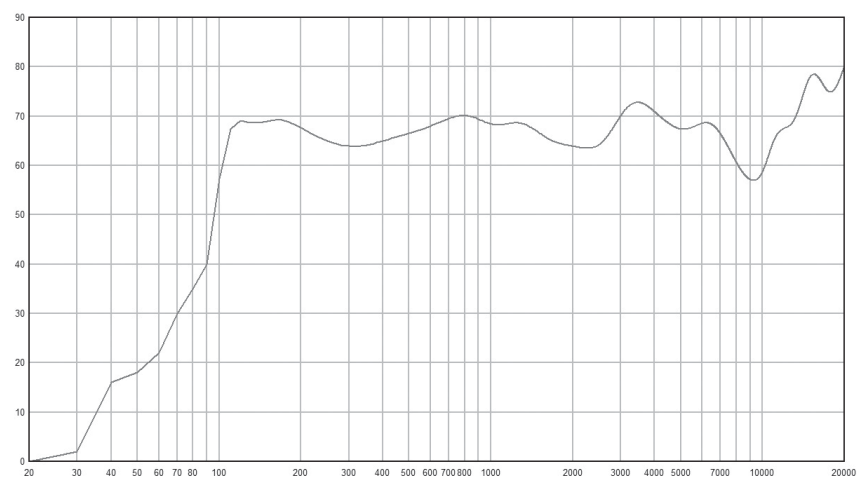


## Plots



## Graphs

Frequency Response (1 W @ 4 M)



## Image1.0

Top of Speaker Details

