

ART Series

■ The same careful acoustic design and advanced materials used in the ART active speakers have been utilized in the ART500 passive speaker. Combining high efficiency, high power handling and excellent sonic performance, the ART500 provides practical solutions for permanent installation applications.

■ The two-way design consists of a 15" woofer with a 4" extended coil and a massive magnet structure for accurate, powerful bass reproduction. The high-frequency section uses a Polynomial CD horn loaded to a 2" exit titanium compression driver and new technology, ring-mode suppression design, to deliver controlled coverage at the highest sonic purity. The CD horn is a part of the molded enclosure.

■ The system includes a high-level crossover network that features oversized inductors in series with the woofer, yielding improved current handling, reduced phase shift and superior transient response. Dynamic high-frequency driver protection is accomplished with a fast-response filament resistor, chosen to compliment the power curve of the driver.

■ All components are housed in a light weight, vented enclosure formed from polypropylene that is extremely rigid and is weather resistant. In addition, the woofer is protected by a metal grille. All controls and connectors are recessed on the rear. A 1-3/8" stand socket and M10 threaded inserts and are molded into the cabinet to provide quick and easy installation using specially designed accessory mounting hardware.

■ This Mackie Industrial product is covered by an exclusive, one-time NO FAULT repair policy in addition to a five year, limited warranty.

Two-Way Speaker System



Features

- 80° x 60° constant-directivity horn with 2" exit compression driver
- 15" high-gauss woofer
- Compact, semi-trapezoidal polypropylene enclosure
- Built-in hand grips, M10 fly points and stand socket
- Optional installation accessories include hardware for truss, grid, pipe and adjustable wall mounts
- Dual Speakon® connectors
- Exclusive Mackie Industrial — one-time NO FAULT repair policy
- Five year, limited warranty

- Live Sound/Music Reinforcement
- High-Level AV Playback
- Large Speech Systems
- High-Level Passive Systems

ART500 Two-Way Speaker System

Specifications

System Acoustic

Frequency Range (-10 dB):	50Hz–20kHz
Frequency Response (-3 dB):	70Hz–17kHz
Horz. Coverage Angle (-6 dB):	80°, nominal
Vert. Coverage Angle (-6 dB):	60°, nominal
Directivity Factor; Q (DI):	10.7 (10.3), averaged 1kHz to 10kHz
System Sensitivity ¹ :	100dB 1W @ 1m
Rated Maximum Peak ² :	133dB @ 1m
System Input Power Rating ² :	500 W, IEC; 2000 W Peak
Recommended Amplifier ³ :	700 W
System Nominal Impedance:	8Ω
HF Protection:	Over-voltage dampening
Crossover:	LICC 1.8kHz, 12dB/octave

Transducers

Low-Frequency:	15" (380mm) woofer with 4" (102mm) voice coil
High-Frequency:	Polynomial horn-loaded 2" (51mm) exit titanium compression driver

Physical

Enclosure:	Gray, semi-trapezoidal, reinforced polypropylene
Mounting:	Six M10 metal threaded inserts, 1.375" (35mm) lockable stand mount
Grille:	Protective perforated steel grille
Input Connectors:	2 x NL4 Speakon® connector plate
Dimensions (HxWxD):	29.15" x 17.88" x 14.77" (740mm x 454mm x 375mm)
Weight:	72.7 lbs. (33kg)

Options

ART A-8	Horizontal wall mount hardware
ART A-9	Horizontal, adjusting wall mount bracket
ART A-10	Vertical, adjusting wall mount bracket
SM	Tripod stand, black

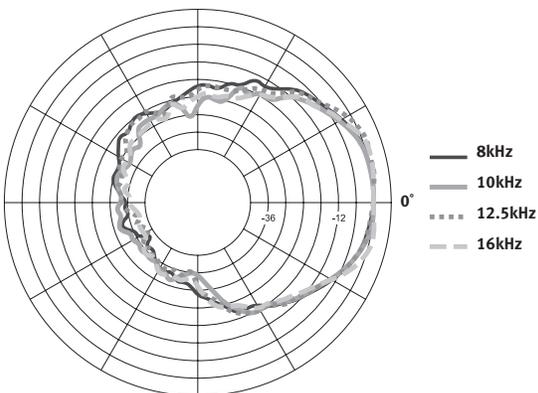
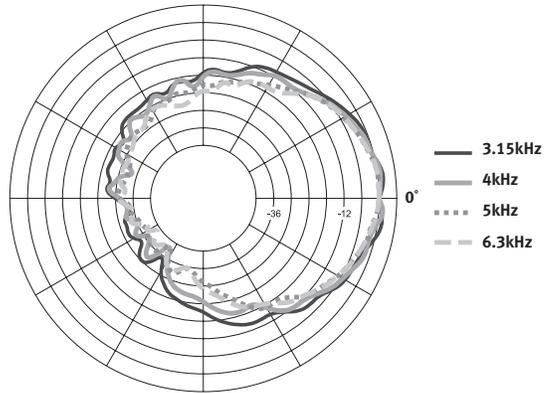
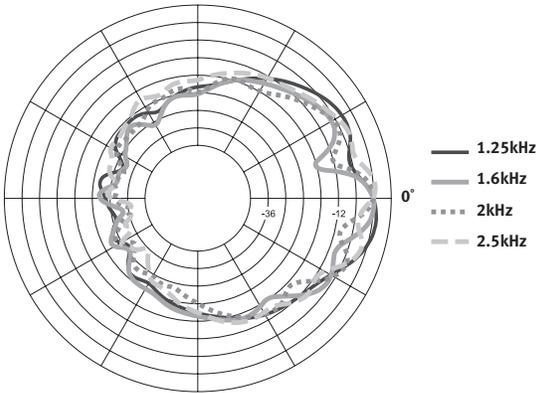
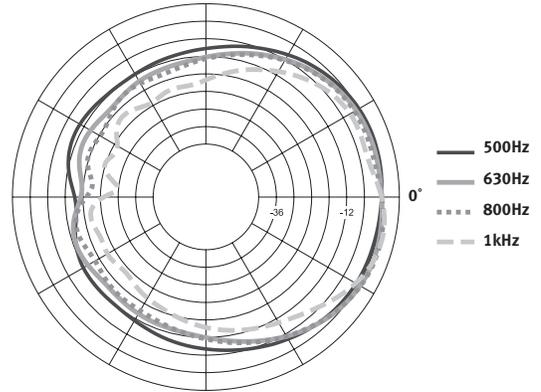
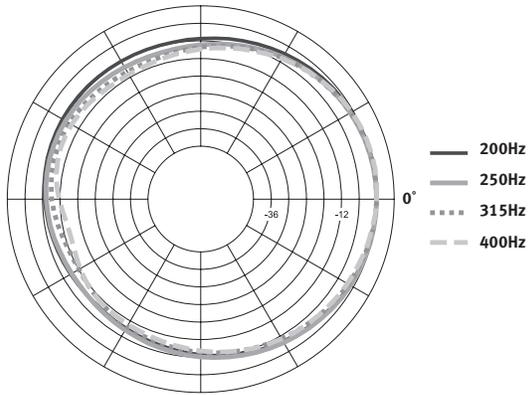
¹ Measured on axis in the far field with 1 watt (2.83 V RMS, 8Ω) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300 Hz to 3 kHz.

² IEC Spectrum, Peak for 2 hours with +6 dB crest factor.

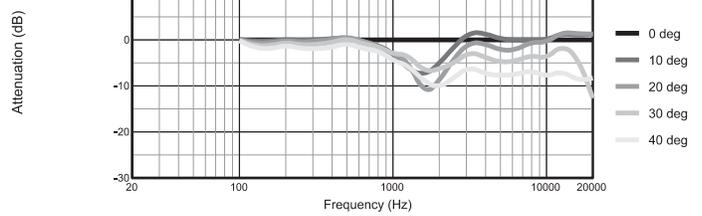
³ Recommended Amplifier is a power capability value that should be taken as a guide.

ART500 Two-Way Speaker System

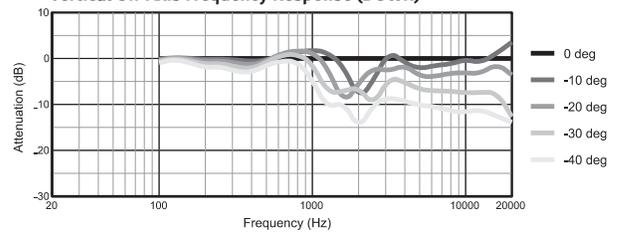
ART500 Vertical Polars



Vertical Off-Axis Frequency Response (UP)

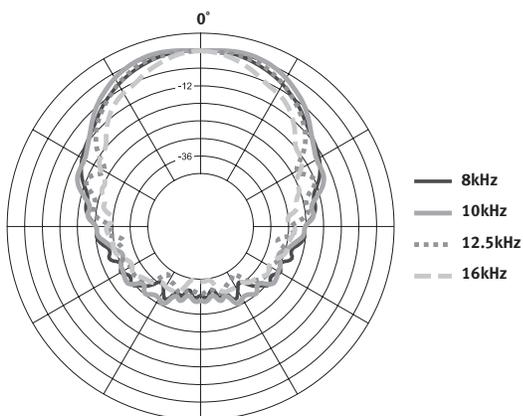
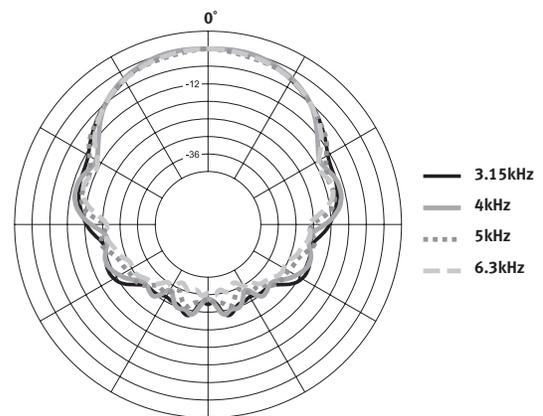
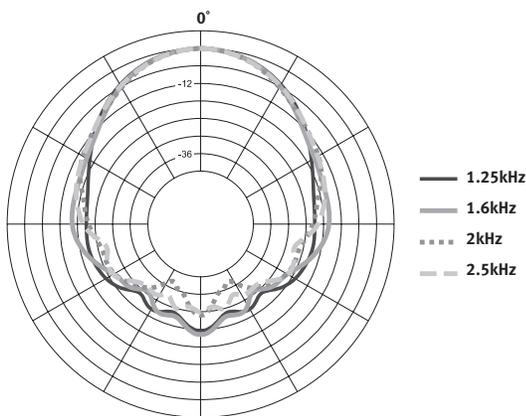
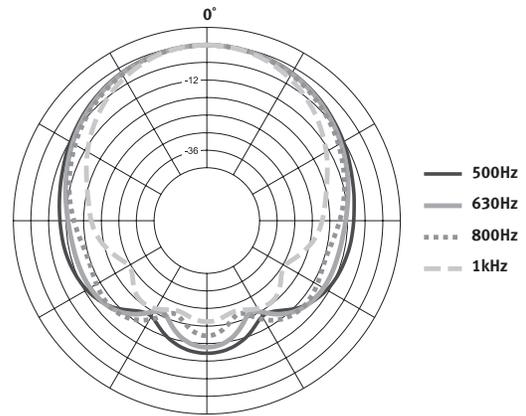
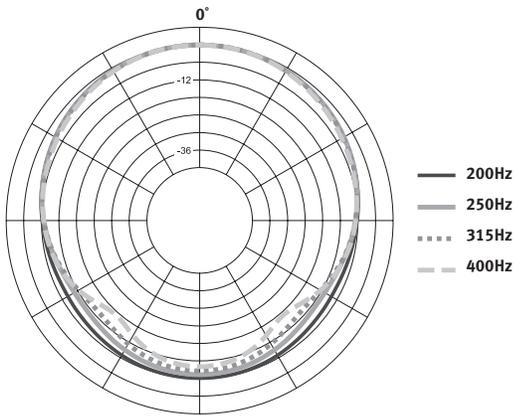


Vertical Off-Axis Frequency Response (DOWN)

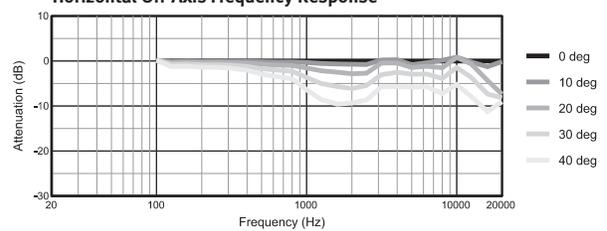


ART500 Two-Way Speaker System

ART500 Horizontal Polars

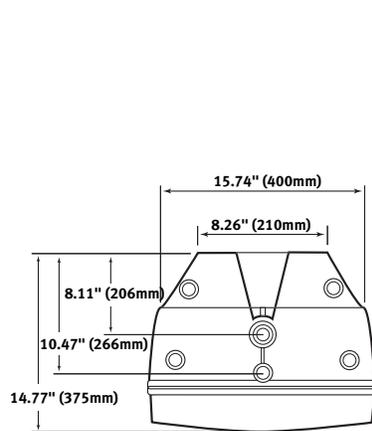
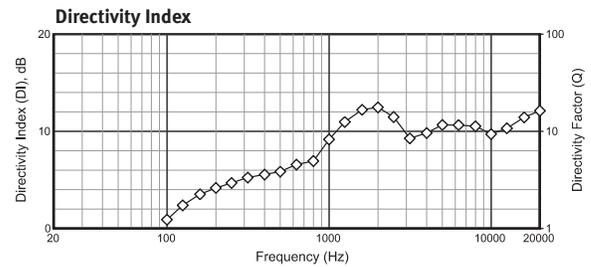
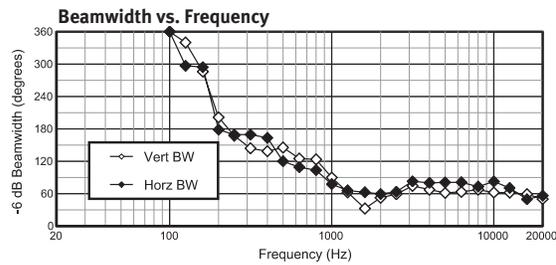
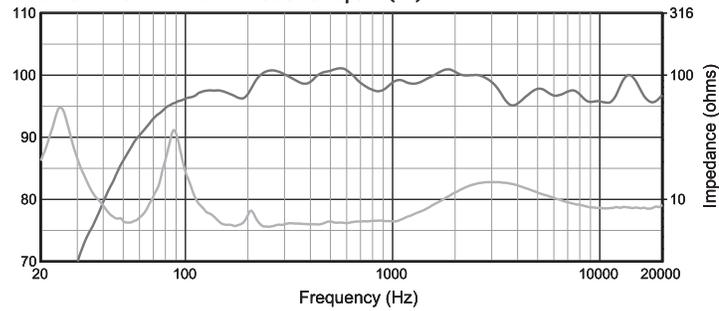


Horizontal Off-Axis Frequency Response

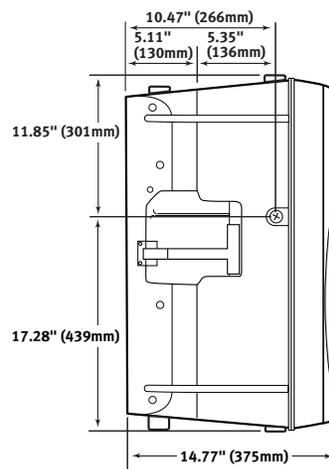


ART500 Two-Way Speaker System

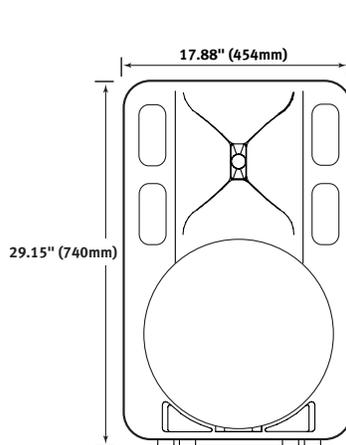
Frequency response is measured on-axis at a distance referenced back to 1m at 1-watt drive. Shown as a half space (2π) environment.



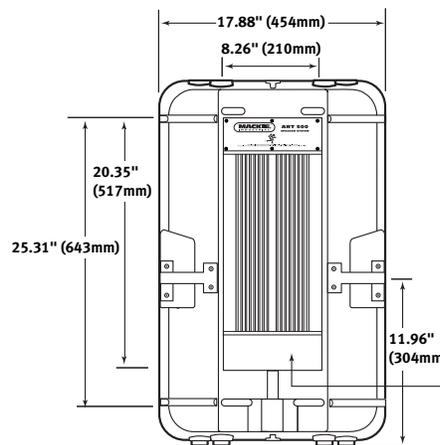
BOTTOM



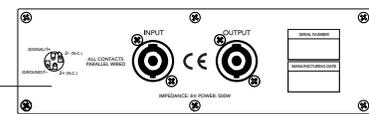
SIDE



FRONT



REAR



ART500 Two-Way Speaker System

Architects' & Engineers' Specifications

The loudspeaker shall be a self-contained unit, housed in a vented, reinforced polypropylene enclosure and consisting of: (1) a 15 inch low-frequency, cone driver having at least a 4 inch voice coil, (2) an 80° x 60°, high-frequency, constant-directivity polynomial horn and horn-loaded, 2 inch compression driver having a titanium diaphragm and compensated for horn resonance and ringing, (3) passive crossover network.

The drivers shall be crossed over at 1.8kHz by a 2-pole, passive network that contains equalization for the constant directivity horn and shall present a nominal 8Ω load to the power amplifier. When measured (1kHz–10kHz) the directivity factor shall be at least 10.7. The loudspeaker shall be capable of operating continuously with a pink noise signal delivered at 500W RMS. It shall produce at least 100dB SPL (300Hz–3kHz) at 1m with an input of 1W RMS and its peak power handling capability shall not be less than 2000W Peak, producing 133dB SPL (1m, anechoic). The nominal frequency response of the system shall be 70Hz–17kHz ±3dB.

The reinforced polypropylene enclosure shall have a volume of at least 2.64 cu. ft., be trapezoidal shaped and equipped with a grille to protect the cone driver. Two Neutrik Speakon® connectors shall be provided for input and input loop-through. At least four M10 and two M8 threaded sockets and a stand socket shall be molded into the cabinet for attaching mounting hardware, designed for the unit and available from the manufacturer. The loudspeaker system shall be a model ART500 manufactured by Mackie Industrial.

Electronic files for this product available at:
www.mackieindustrial.com

This Specification Sheet	ART500.PDF
Architects' & Engineers' Specifications	ART500AE.TXT
Quick-Start Manual	ART500QS.PDF
Owner/Operator's Manual	ART500ML.PDF
CADD files	ART500.DXF
EASE data	ART500.EAS

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part no. 910-171-10



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