

# Specifications

## System:

Freq. Range (-10 dB):  
55Hz-20kHz

Freq. Response ( $\pm 3$  dB):  
90Hz-19kHz

Horz. Coverage Angle (-6 dB):  
80° nominal

Vert. Coverage Angle (-6 dB):  
60° nominal

Directivity Factor Q (DI):  
11.5 (10.6), averaged 1kHz-10kHz

System Sensitivity:  
99 dB, 1W@1m

Rated Maximum SPL:  
126 dB @ 1 m (3.3ft) peak

HF Protection:  
Dynamic

## Transducers:

Low Frequency:  
15" (380 mm) diameter woofer

High Frequency:  
2" (51 mm) exit compression driver, horn loaded

## Preamp and Processor:

Input Sensitivity:  
Mic In: 8mV  
Line In: 125mV

Input Impedance:  
Mic In: 650 $\Omega$  unbalanced  
1.3k $\Omega$  balanced  
Line In: 10k $\Omega$  unbalanced  
19k $\Omega$  balanced

Crossover Frequency and Slope:  
1.2kHz; 24 dB/octave

Time Alignment:  
Analog, 0.3 ms HF delay

Speaker Protection:  
Thermal, over-excursion

Music Equalization:  
+4.3 dB @ 65Hz  
+4.0 dB @ 12kHz

Voice Equalization:  
+4.0 dB @ 3kHz  
+4.0 dB @ 6kHz

Indicators:  
Power ON, Limiter

## Amplifiers:

LF Amplifier Power:  
300 watts RMS

HF Amplifier Power:  
50 watts RMS

Distortion:  
< 0.1% THD at rated power

Amp Protection:  
Thermal, limiter, short circuit

Power Supply:  
115/230 VAC, 2A, 50/60 Hz

## Physical:

Enclosure:  
Asymmetrical trapezoidal,  
reinforced polypropylene

Mounting:  
Lockable 1-3/8" (35mm) stand  
mount

Rigging Inserts:  
6 points, accepts M10 threaded  
hardware

Input/Output Connectors:  
2 XLR balanced

Dimensions HxWxD:  
29.1" x 17.9" x 14.8"  
(740 mm x 454 mm x 375 mm)

Net Weight:  
83.8 lb (38.0 kg)

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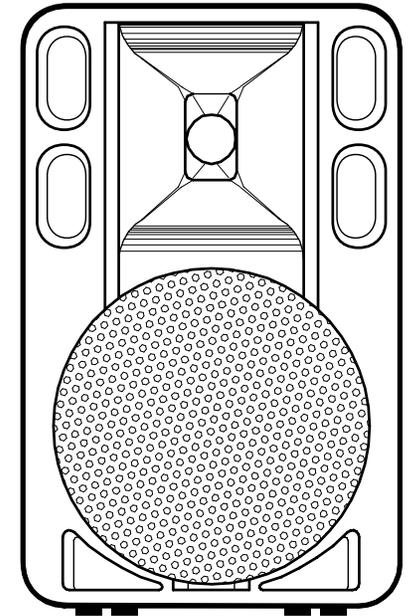
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**ART500A**  
Active Speaker System

## Quick-Start Guide



The ART500A is a full-range two-way professional active speaker system that combines high-power, wide bandwidth, and the reduced weight of a special hybrid construction for fixed-installation systems. The 15" low-frequency transducer, in combination with a 2" exit titanium compression driver coupled to an integral 80° x 60° constant directivity polynomial horn, form an extremely powerful package for any small to medium-sized sound reinforcement application.

It features a balanced XLR input with a Mic/Line switch and a paralleled balanced XLR output for cascading multiple speakers. Rear panel controls also include Music and Voice equalization switches, and a rotary volume control.

The two built-in power amplifiers provide 400W for the LF driver and 100W for the HF driver. The enclosure is constructed of high-strength polypropylene with two internal 16mm thick multilayer wood panels. It has six M10 threaded inserts, and an integral locking 1-3/8" socket in the bottom for mounting on a standard speaker stand.

## Safety First!

Before connecting and using the equipment, please read this Quick-Start Guide carefully and keep it for future reference.

**WARNING!** This equipment has been designed to be installed by qualified professionals only! There are many factors to be considered when installing professional sound reinforcement systems, including mechanical and electrical considerations, as well as acoustic coverage and performance. Mackie Industrial strongly recommends that this equipment be installed only by a professional sound installer or contractor.

**CAUTION:** To avoid the risk of electric shock, never allow this equipment to be exposed to rain or dampness.

1. Never install, connect, or disconnect the unit with the power supply on.
2. Before powering up the speaker, make sure the voltage select switch corresponds to the AC Voltage supply.
3. Make sure the safety ground on the power cord is properly grounded.
4. To prevent the risk of electric shock, never open the unit. There are no user serviceable parts inside.
5. To ensure normal cooling of the amplifier, make sure the unit is well-ventilated. Avoid exposure to direct sunlight or proximity to any heat source, dust, or dampness.

## Rear Panel Features and Controls

1. INPUT is a balanced XLR input jack that accepts mic-level or line-level signals.
2. OUTPUT is a balanced XLR output jack in parallel with the INPUT jack, allowing the signal to “loop through” for daisy-chaining speakers together.
3. LINE/MIC switch for mic-level or line-level signals at the INPUT.
4. VOLUME control adjusts the input-stage gain.
5. MUSIC equalization switch ON provides a low-frequency and high-frequency boost.
6. VOICE equalization switch ON provides a gentle boost at 3kHz and 6kHz.
7. OPERATE indicator illuminates when the POWER switch is turned on.
8. LIMITER indicator illuminates when the limiting protection circuits are activated.
9. POWER switch turns the AC power on and off.
10. AC OUTLET for connecting AC power to an additional Mackie Industrial active speaker system.
11. IEC AC Socket. Connect the detachable power cord to the socket. The protection fuse is also contained in the AC socket.

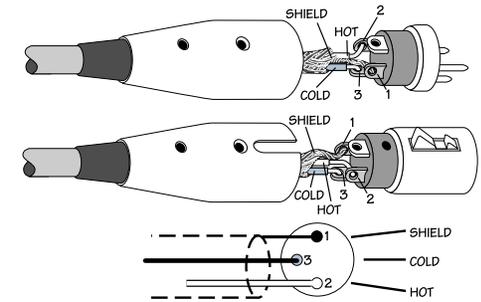
**CAUTION:** Replace fuse only with the same type as indicated on the rear panel.

12. Grounding Terminal provides an additional safety grounding point.

## Connections

The XLR connectors use the following AES standard:

- Pin 1 = Ground (Shield)
- Pin 2 = Hot (+)
- Pin 3 = Cold (-)



## Installation

A 1-3/8" (35mm) socket is provided in the bottom of the cabinet for mounting the loudspeaker on a speaker stand.

The ART500A can be suspended using approved rigging hardware. **Always use at least two M10 threaded inserts located on opposite sides of the enclosure.** The speaker **must** be positioned so that the weight of the enclosure is equally distributed over the two inserts.

**WARNING:** Never attempt to suspend the ART Series loudspeakers by their handles. Consult a professional rigger or structural engineer prior to suspending loudspeakers from a structure not intended for that use. Always know the working load limit of the structure supporting the loudspeaker array. Always make sure that the rigging hardware minimum rating is at least five times the actual load.

