

ALA-9

ACOUSTIC LINEAR ARRAY LOUDSPEAKER SYSTEM

DESCRIPTION:

The tri-amped ALA-9 is the largest of the ALA series. It has an extremely high power capability, making it ideally suited for applications requiring high SPL capability, such as rock concerts, sporting events, and outdoor pageantry.



DRIVER COMPLEMENT:

LOW FREQUENCY: Dual Apogee 15" (381mm) permanent magnet cone-type drivers are treated with Ferrofluid® and a waterproofing compound, providing resistance to moisture and enabling long-term stability of cone resonance and cone mass parameters

MID FREQUENCY: Dual Apogee 10" (254mm) permanent magnet cone-type drivers are treated with Ferrofluid and a waterproofing compound, providing resistance to moisture and enabling long-term stability of cone resonance and cone mass parameters

HIGH FREQUENCY: Three Apogee 2" (51 mm) throat compression drivers treated with Ferrofluid for greater power handling capability, lower distortion, and control of short-term impedance rise

INPUT CONNECTORS:

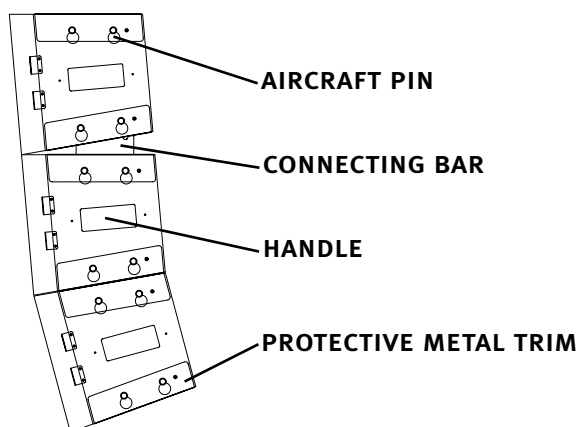
Neutrik™ NL8MP Speakon™ connectors standard; Cannon EP series and gas-tight barrier strips optional

COMPATIBLE PROCESSORS:

PLA-9 Analog Processor, D-1 Digital Controller

RIGGING HARDWARE:

Internal formed-steel channels accept fully encapsulated steel joining bars, secured by aircraft-grade quick-release pins; all rigging parts are recessed



Apogee's unique rigging system makes assembly quick and easy. Enclosures are joined together by choosing the proper length connecting bars to achieve either a flat-pack formation or a tight-pack formation. The bars are secured in place with aircraft grade retention pins.

ENGINEERING DATA:

FORMAT:

Tri-amped/Three-way/Horn-loaded MF and HF/Electronically-coupled

DISPERSION:

ALA-9 H: 60° x V: 10°

ALA-9W H: 90° x V: 10°

FREQUENCY RESPONSE (1M ON AXIS):

45 Hz to 17.5 kHz + 3 dB

MAX. SPL (@1M):

136 dB cont./142 dB peak

PTML (PEAK TRANSIENT MECHANICAL LIMIT):

153 dB

SENSITIVITY (1 W @ 1 M):

LF: 100 dB SPL MF: 108 dB SPL HF: 112 dB SPL

NOMINAL IMPEDANCE:

LF: 8 ohms x 2 MF: 4 ohms HF: 4 ohms

MAX. POWER HANDLING:

LF: 1200W cont./4800W peak

MF: 600W cont./2400W peak

HF: 450W cont./1800W peak

DIMENSIONS:

front: 47" (1194mm) W x 24" (610mm) H

rear: 47" (1194mm) W x 20.1" (511mm) H

depth: 22.7" (577mm)

WEIGHT:

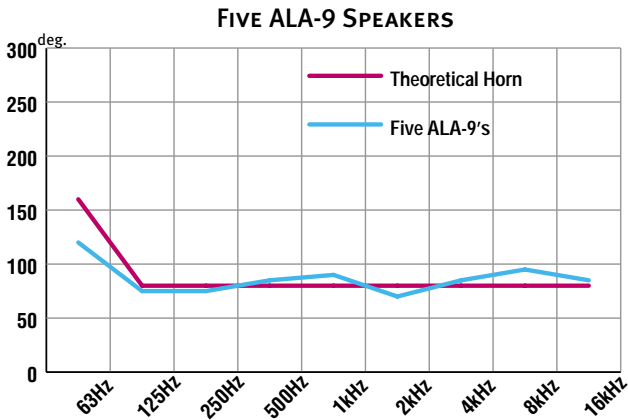
255 lbs. (116 kg) without rigging bars

APPLICATIONS:

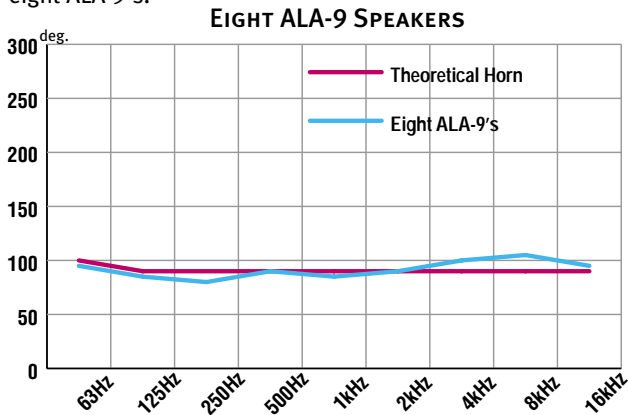
- CONCERT SOUND
- STADIUM/ARENA REINFORCEMENT
- OUTDOOR PAGEANTRY
- THEME PARKS
- LARGE-SCALE INDUSTRIALS

APOGEE
SOUND INTERNATIONAL, LLC

The graph displayed below depicts the vertical beam width of an array of five ALA-9's compared to the frequency of a theoretically perfect horn. The vertical dimension of the perfect horn, at 115 inches, is equal to the vertical dimension of the five ALA-9's.



The graph displayed below depicts the vertical beam width of an array of eight ALA-9's compared to the frequency of a theoretically perfect horn. The 178 inch* vertical dimension of the perfect horn is equal to the vertical dimension of the eight ALA-9's.



In both graphs, it can readily be seen that the Linear Array exhibits far better control than that of the horn, particularly in the lower frequencies. As more enclosures are added, the pattern control extends to lower and lower frequencies, while the directivity continues to increase.

* Note: If such a horn were to be built, its excessive depth would render it impractical to transport.

PLA-9 PROCESSOR SPECIFICATIONS

FRONT PANEL CONTROLS

- LEVEL:** Continuously adjustable with positive detents; linear taper controls allow precise attenuation
- Lo CUT:** Low frequency roll-off (-6 dB/octave @ 100 Hz) for response correction when speaker is near boundary surfaces
- PRESET:** Enables rear panel PAR adjustments for calibration of the protection circuitry to the amplifier's dynamic headroom characteristics
- LOCKOUT SWITCH:** Freezes the selected state of the other function switches to avoid tampering
- RV ONLY:** Front panel line-level XLR inputs with "loop through" XLR outputs; front panel speaker output connectors (Neutrik™ NL8MP Speakon™ connectors standard; other connectors available); Front panel pin 1 ground lift switches
- PV ONLY:** Rear panel barrier strip for pin 1 ground lift

SYSTEM PROTECTION

- RMS LIMITER:** 100ms integration for time protection against long term overdrive
- PEAK LIMITER:** 3 to 5ms fast acting to help protect against very high level transients

USER ADJUSTABLE

- LIMITER THRESHOLD:** For control of amplifier clipping
- EXCURSION CONTROL:** Program defined adaptive enclosure alignment (modified B6)

- INPUTS:** XLR connectors, active balanced inputs (optional transformer-balanced inputs utilizing Jensen JE-11 P-1 transformers); note - pin 2 hot

- INPUT IMPEDANCE:** 50k-ohm AC-coupled active balanced (10k-ohm balanced with optional input transformer)

- OUTPUTS:** Active balanced AC-coupled outputs - XLR connectors on rear panel

- DISTORTION:** .02% THD typical at maximum output (+20 dBm)

- HUM & NOISE:** Better than -90 dBV

- DYNAMIC RANGE:** 110 dB

DIMENSIONS

- PV:** 19" (483mm) W x 1.8" (46mm) H x 11.8" (300mm) D; (1 EIU rack space)

- RV:** 19" (483mm) W x 3.5" (89mm) H x 11.8" (300mm) D; (2 EIU rack spaces)

- WEIGHT:** PV: 12 lbs. (5.5 kg)
RV: 17 lbs. (7.8 kg)

PV FOR PERMANENT INSTALLATIONS (SINGLE-CHANNEL)



RV ROAD VERSION (DUAL-CHANNEL)



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