



AE-5

ARRAYABLE LOUDSPEAKER SYSTEM

DESCRIPTION:

The AE-5 two-way, bi-amped system is the flagship of the Apogee line. This fully arrayable system functions brilliantly when used alone or as a building block for a large sophisticated system, thus making it one of the most versatile loudspeakers ever developed.

DRIVER COMPLEMENT:

LOW FREQUENCY: One Apogee 12" (305mm) permanent magnet cone-type driver is treated with a waterproofing compound, providing resistance to moisture, and enabling long-term stability of cone resonance and cone mass parameters

HIGH FREQUENCY: One Apogee 1" (25mm) throat composite diaphragm compression driver is treated with Ferrofluid® for greater power handling capability, lower distortion, and control of short-term impedance rise

INPUT CONNECTORS:

Neutrik™ NL4MP Speakon™ connectors standard; Cannon EP series and gas-tight barrier strips optional

COMPATIBLE PROCESSORS:

P-500, DPA-500, D-1 Digital Controller

HANDLES:

Four handles designed as an integral part of enclosure (no moving parts)

GRILLE:

Powder-coated, diamond-punched steel with acoustic foam covering

TRIM:

Optional protective steel trim pieces on top and bottom edges; powder-coated for durability

RIGGING HARDWARE:

Four 12-gauge steel nutplates, mounted two on top and two on bottom, recessed, nominally flush; accepts 3/8"-16 thread (10mm nutplate or Aeroquip Pan fittings optional); nutplates are backed with 12-gauge steel internal brackets

FINISH:

Textured high-strength black epoxy paint; other colors optional

ENCLOSURE TYPE:

20° trapezoidal, optimally-vented bass

CABINET CONSTRUCTION:

Multi-ply Finland birch with stainless steel fasteners

ENGINEERING DATA:

FORMAT:

Bi-amped/Two-way/Electronically-coupled

DISPERSION:

H: 90° x V: 45°

FREQUENCY RESPONSE (1M ON AXIS):

53 Hz to 17 kHz ± 3 dB

MAX. SPL (@1M):

125 dB cont./131 dB peak

PTML (PEAK TRANSIENT MECHANICAL LIMIT):

144 dB

SENSITIVITY (1W @ 1M):

LF: 99 dB/100 Hz to 1 kHz

HF: 106 dB/1 kHz to 20kHz

NOMINAL IMPEDANCE:

8 ohms, each driver

MAX. POWER HANDLING:

LF: 300W cont./1200W peak

HF: 150W cont./600W peak

DIMENSIONS:

front: 14" (356mm) W x 23" (584mm) H

rear: 9.3" (236mm) W x 23" (584mm) H

depth: 16.5" (419mm)

WEIGHT:

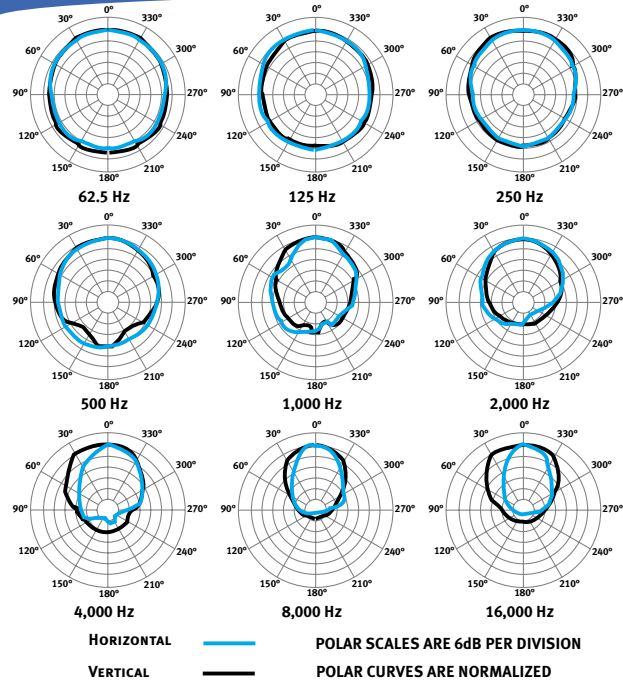
76 lbs. (34.5 kg)

APPLICATIONS:

- THEATRICAL REINFORCEMENT
- CONCERT SOUND REINFORCEMENT
- CLUBS & DISCOS
- HOUSES OF WORSHIP
- SPORTS ARENA ANNOUNCING

APOGEE

SOUND INTERNATIONAL, LLC



AE-5 POLAR MEASUREMENTS

All polar measurements obtained in a free-field environment at 10 degree increments. Data acquired utilizing: TEF System 12+, B&K 4007 Mic, HP 35660A Dual-Channel FFT Analyzer.

P-500 PROCESSOR SPECIFICATIONS

FRONT PANEL CONTROLS

- LEVEL:** Continuously adjustable with positive detents; linear taper controls allow precision attenuation
- Lo CUT:** Low frequency roll-off (-6 dB/octave @ 100 Hz) for response correction when speaker is near boundary surfaces
- VAR/CAL:** Selects between adjustable or fixed low frequency attenuation
- RECESSED TRIMPOT:** Adjusts low frequency roll-off point, for use in arrays, from 100 Hz down to 50 Hz (continuously adjustable)
- AE-6:** Switch selects between AE-5/AE-6 response curves; for use with the AE-6 stage monitor
- 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 functions to avoid tampering
- RV ONLY:** Front panel line-level XLR inputs with "loop through" XLR outputs; front panel speaker output connectors (Neutrik™ NL4MP 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) deep; (2 EIU rack spaces)
- WEIGHT:** PV: 12 lbs. (5.5 kg)
RV: 17 lbs. (7.8kg)

PV FOR PERMANENT INSTALLATIONS (SINGLE CHANNEL)

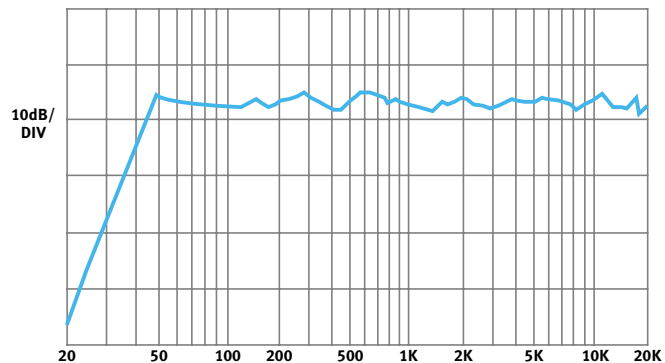


RV ROAD VERSION (DUAL CHANNEL)



The P-500 processor is available in three versions to meet the requirements of permanent system installers and portable system operators. Each includes servo-loop protection circuits, time and frequency domain correction and a precision front-end utilizing factory-matched components for high Common Mode Rejection. All models feature front panel function switches (which retain their settings through power-up/power-down cycles), turn-on/turn-off muting and Apogee's unique PAR™ adjustable protection circuitry. PAR (Positive Amplifier Return) senses the output of the amplifier and engages low distortion limiters to aid in protecting the drivers under abusive conditions. By selecting a "User Preset" mode, the protection circuits can be adjusted to match a wide range of power amps.

AE-5 LOUSPEAKER



FREQUENCY RESPONSE: Measured in a free-field anechoic environment using a swept one-third octave input.

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