



BI-AXIAL HORN WITH GIMBAL-MOUNT

BIA-100

TWO



BIA-100

FEATURES

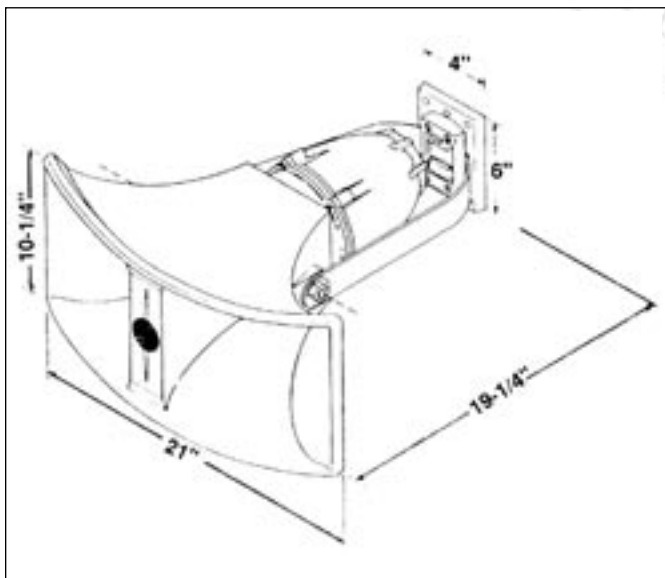
- High-Efficiency Bi-Axial Horn Provides 130° x 60° Wide-Angle Sound Coverage
- Combine with PD Series Drivers
- Nominal Frequency Response of 350-8,000Hz for High-Intelligibility Voice, Signaling, and Full-Range Music in Indoor/Outdoor Applications
- Patented 180° Gimbal-Mount for Installation Flexibility
- Accepts All Atlas Sound and 1 1/8" - 18 Thread Compression Drivers with Throat Openings of 0.7" Diameter

APPLICATIONS

Bi-axial horn model BIA-100 delivers outstanding sound dispersion and audio efficiency when used with medium or high powered compression drivers. Unit features exponentially-flared projectors which eliminate phase cancellation, control low-frequency roll off, and offers maximum results in professionally-applied voice, music, and signaling systems. It can be surface or flange-mounted and is ideal for use as a midrange component for two and three-way, high-fidelity loudspeaker systems. Weather-resistant construction is suitable for permanent or portable installation in church, recreation/sport centers, mass transit terminals, industrial, commercial, educational, and institutional facilities.

GENERAL DESCRIPTION

Model BIA-100 is the original reflex horn featuring a bi-axial design with twin air columns and exponential bell for wide-angle coverage with a linear frequency response. The horn provides excellent acoustic loading maintained to a 350Hz low-frequency roll off and optimizes delivery of high and midrange signal levels. BIA-100 is designed for use with Atlas Sound PD Series compression drivers and models having 1 1/8" -18 male threads and 0.707" diameter throat openings. Refer to PD Series compression driver specification sheets for high-pass filter requirements. Transformer-equipped drivers are available (power-tap information is outlined on individual compression driver specification sheets). The easily-mounted horn features the labor-saving patented gimbal-mount bracket assembly (U.S. Patent #4,325,529) which allows for directional positioning up to 180° vertically and horizontally. It includes a steel bracket, cast-mounting base, and provisions for flange installation. The weather-resistant, non-glare matte black foam horn is resistant to resonance. Bracket assembly is finished in durable epoxy. Overall dimensions are 21"W x 10 1/4"H x 19 1/4"D (533mm x 260mm x 489mm) and the weight is 16 lbs.



MODEL	POWER RATING	SOUND LEVEL		**DISPERSION	IMPEDANCE
		PEAK	*RP / 1M, 1W / 1M		
BIA-100 w/ PD-30	30	125dB	121dB, 107dB, 400-5200 Hz	130° x 60°	8 Ohm
BIA-100 w/ PD-5VH	40	126dB	121dB, 106dB, 300-6300 Hz		16 Ohm
BIA-100 w/ PD60A	60	125dB	125dB, 108dB, 300-6000 Hz		16 Ohm

* Measured at Rated Power, 1 Meter (avg)

**Angle Shown for -6dB, 2kHz Octave Band

Specifications subject to change without notice



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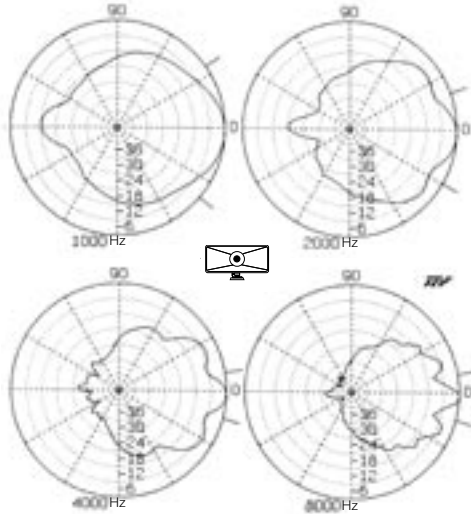
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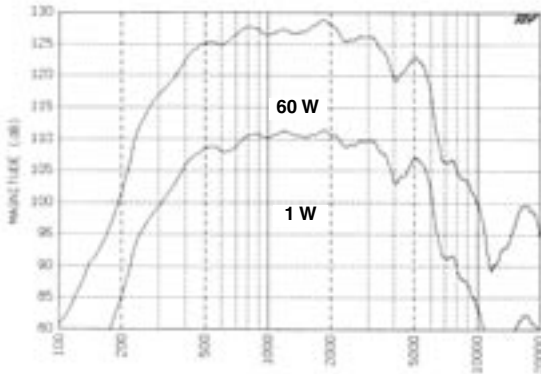
ARCHITECT AND ENGINEER SPECIFICATIONS

Horn shall be Atlas Sound _____ (Model BIA-100) or approved equal incorporating a unitized, bi-axial, twin-reflex air column assembly for wide-angle coverage pattern. Low-frequency roll off shall be 350 Hz, air column length 2¾' (838mm) and sound-dispersion angle 130° in the plane of narrower horn dimension and 60° in the wider dimension. The horn shall accommodate compression driver units with standard 1½" - 18 thread and measure 21"W x 10¼"H x 19¼"D.

The horn bell shall be weatherproof and constructed of non-resonant molded foam textured in black. A steel mounting bracket and cast installation base shall provide adjustable flexibility in sound focusing up to 180° vertically and horizontally. The gimbals-mount shall include provisions for surface installation, banding, and strapping.

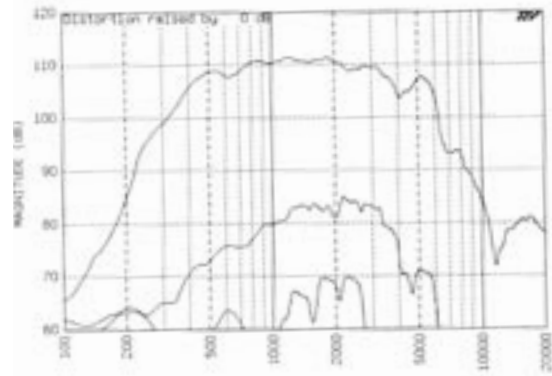


Horizontal Polars Are Normalized To Zero On Axis

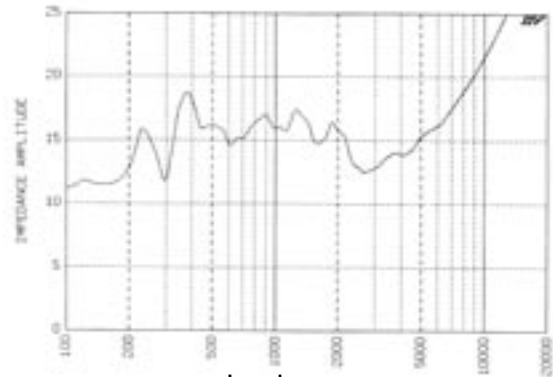


Frequency Response (60 Watts at 1 meter)
Measured with 60-watt driver Model PD60A

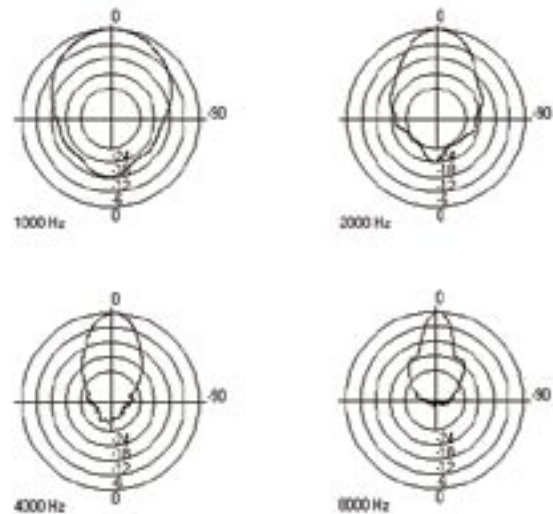
MODEL BIA-100 with PD60A				
Frequency	Q	Di	Beamwidth	
			Horizontal	Vertical
500	4	7	95	165
1000	8	9	75	105
2000	14	11	50	55
4000	25	14	25	35
8000	48	17	25	25



Harmonic Distortion
Measured with 60-watt driver Model PD60A



Impedance
Measured with 60-watt driver Model PD60A



Vertical Polars Are Normalized To Zero On Axis

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