4312A CONTROL MONITOR

FEATURES:

Smooth, powerful, wide-range response from a compact enclosure

Components:
- 300 mm (12 in) long excursion low frequency transducer
- 130 mm (5 in) midrange transducer
- 25 mm (1 in) titanium dome high frequency transducer

Mirror-imaged for accurate stereo imaging

Suitable for vertical or horizontal placement

The 4312A is the descendent of JBL's original bookshelf control monitor, the 4310. When introduced in the late sixties, the 4310 answered a long-standing industry need for a small monitor with a forward sound characteristic which could handle high power input levels with little sign of distress. The rest is history, and there has always been a place for the 4310, 4311, and 4312 systems in recording, post-production, broadcasting, and numerous other applications.

The new 4312A extends the high frequency bandwidth of its predecessors through the use of the 035Ti driver. This remarkable high frequency transducer uses a 25 mm (1 in) pure titanium dome, which maintains flat on-axis response to 27 kHz.

A new midrange transducer with optimally damped response has been incorporated into the system, as has a high-resolution driving network.

The low frequency transducer, in many ways the heart of the system, is the model 2213H woofer, which is capable of high output levels with low

distortion. The 300 mm (12 in) unit is built on a cast aluminum frame for rigidity under demanding applications. It has a 75 mm (3 in) voice coil edge wound with flat copper ribbon. The magnetic structure incorporates JBL's Symmetrical Field Geometry (SFG) for lowest harmonic distortion under high drive conditions.

In mirror-imaged pairs, the 4312A provides the sound engineer with the accurate stereo perspectives which are so important in contemporary recording and broadcast practice. The particle board enclosure is acoustically inert and capable of withstanding more than routine mechanical abuse. Front panel network controls permit the user to optimize the system's acoustical response for specific applications.

SPECIFICATIONS:

SYSTEM:	
Power Capacity[1]:	100 W
Frequency Response:	45 Hz–20 kHz, ± 3 dB
Nominal Impedance:	8 ohms
Crossover Frequencies:	1.5 kHz, 7 kHz
Sensitivity[2]:	91 dB, 1 W, 1 m
Polarity:	Positive voltage to + terminal causes outward low frequency cone motion
LOW FREQUENCY TRANSDUCER:	
Nominal diameter:	300 mm (12 in)
Voice Coil:	75 mm (3 in) edge wound copper ribbon
Magnetic Assembly Weight:	4.7 kg (10¼ lb)
Flux Density:	1.0 T (10,000 gauss)
Sensitivity[3]:	89 dB, 1 W, 1 m
MIDRANGE TRANSDUCER:	
Nominal Diameter:	130 mm (5 in)
Voice coil:	22 mm (⅞ in) copper
Magnetic Assembly Weight:	0.74 kg (1.63 lb)
Flux Density:	1.25 T (12,500 gauss)
Sensitivity[4]:	94 dB, 1 W, 1 m
HIGH FREQUENCY TRANSDUCER:	
Nominal Diameter:	25 mm (1 in)
Voice Coil Diameter:	25 mm (1 in)
Magnetic Assembly Weight:	0.68 kg (1.5 lb)
Flux Density:	1.4 T (14,000 gauss)
Sensitivity[5]:	92 dB, 1 W, 1 m
GENERAL:	
Enclosure Material:	Walnut Veneer Particle Board–Black Fabric Grille
Dimensions:	597 mm x 362 mm x 298 mm deep (23½ in x 14¼ in x 11¾ in deep)
Net Weight:	21 kg (45 lb)
Shipping Weight:	24 kg (52 lb)

[1]Rating based on test signal of filtered noise conforming to international standard IEC 268-5 (pink noise with 12 dB/octave rolloff below 40 Hz and above 5000 Hz with a peak-to-average ratio of 6 dB), two hours duration.

[2]Measured with the input swept from 500 Hz to 2500 Hz, with controls set for flattest response.

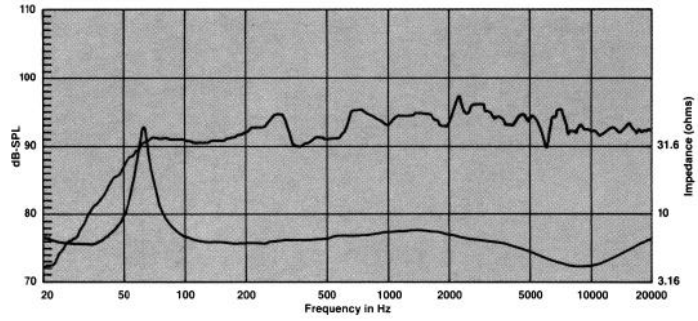
[3]Since the major portion of the acoustical power reproduced by the low frequency transducer lies below 800 Hz, this specification has been developed using a test signal warbled from 100 Hz to 500 Hz.

[4]Averaged from 1 kHz to 3 kHz, within 1 dB.

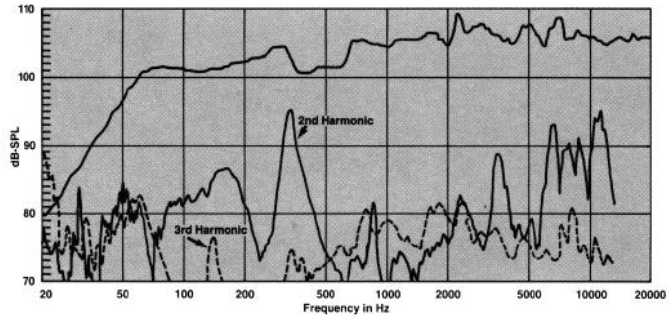
[5]Averaged above 3 kH, within 1 dB.

Architectural specifications are available from JBL Professional on request.

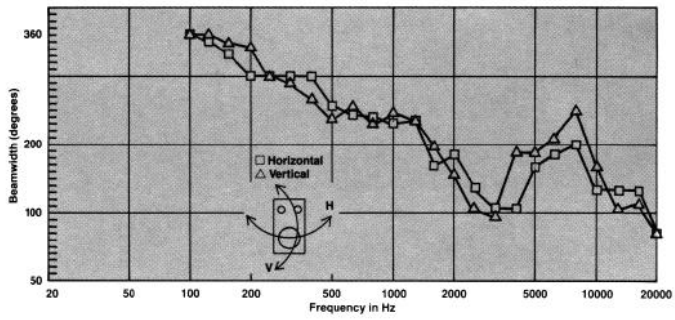
On-Axis Frequency Response and Impedance vs. Frequency



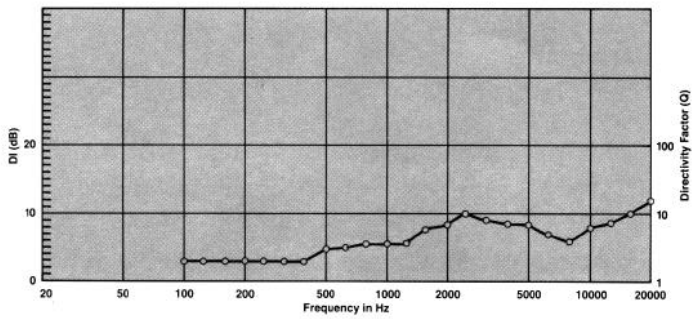
Distortion (2nd and 3rd Harmonic) vs. Frequency, 10 W Input. Distortion raised 20 dB.



Beam width (−6 dB) vs. Frequency



Directivity vs. Frequency



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