LSR6325P-1

Linear Spatial Reference Bi-Amplified Studio Monitor

Key Features:

- High Performance bi-amplified design with proprietary JBL transducer technology.
- Titanium composite high-frequency transducer.
- LSR Linear Spatial Reference technology ensures neutral off-axis response for greater clarity at the mix position.
- User-selectable Boundary Compensation restores accurate response when speaker is positioned near a wall or on a work surface.
- Front Panel Volume and Power Controls.
- Integrated mounting points.
- Magnetic shielding minimizes interference when used in close proximity to CRT monitors.
- Die cast aluminum enclosure provides high inertial ground for optimum transducer performance and low resonance.
- THX pm3® approved.

The LSR6325P-1 Studio Monitor provides ultra-accurate response and exceptional SPL capability in a very compact form factor. THX pm3® approved, the LSR6325P-1 is ideal for stereo and surround recording, post production and broadcast systems where space is limited but accuracy and high-output are required. The LSR6325P-1 Studio Monitor combines JBL's latest in transducer and system technology and incorporates the LSR Linear Spatial Reference design to provide greater accuracy at the mix position. The Linear Spatial Reference (LSR) philosophy is based on a set of design goals that optimize the overall performance of the system in a variety of acoustic spaces. Instead of focusing on a simple measurement such as on-axis frequency response, LSR design requires the system meet frequency-response criteria for seventy-two off-axis measurements. Carefully-controlled dispersion, achieved through transducer design, crossover frequency selection and engineering of the enclosure, ensures not just the on-axis sound, but also the reflected sound which reaches of the mix position is neutral.

By incorporating LSR into the system design the LSR6325P-1 delivers greater high and mid frequency accuracy to the mix position, in a broad range of production environments.

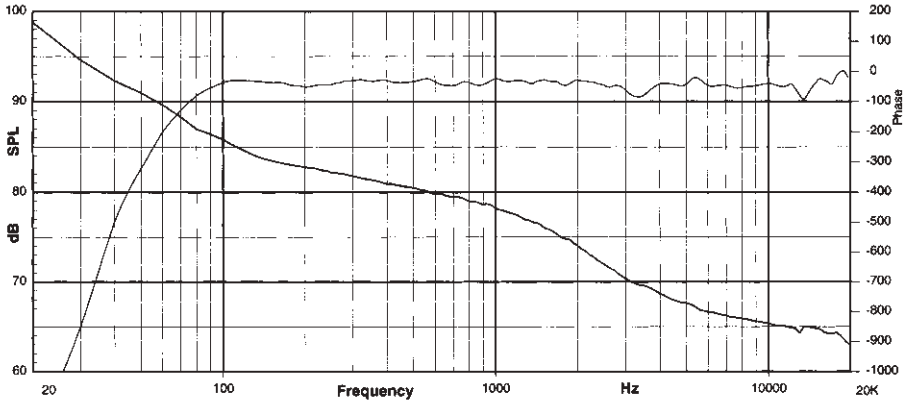
Low Frequency Transducer

The 5.25" woofer is based on JBL's research and field proven experience in low distortion, high excursion designs. The cone forms a rigid piston and is supported by a butyl rubber compliance. The motor structure incorporates Symmetrical Field Geometry (SFG) with an integral shorting ring for maximum linearity. The high excursion capability provides a substantial increase in dynamic range over typical transducer design. A cast aluminum basket provides advanced heat dissipation for low power compression. The powerful structure is shielded for use in close proximity to CRT monitors.

High Frequency Transducer

The high frequency device is a 1" composite diaphragm integrated with an Elliptical Oblate Spheroidal (EOS) Waveguide with 60 x 100 degree dispersion which is critical to the smooth spatial response required in today's working environments.

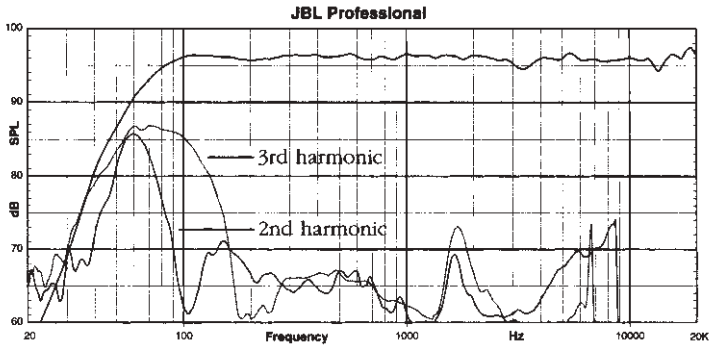
On-Axis Amplitude and Phase Response



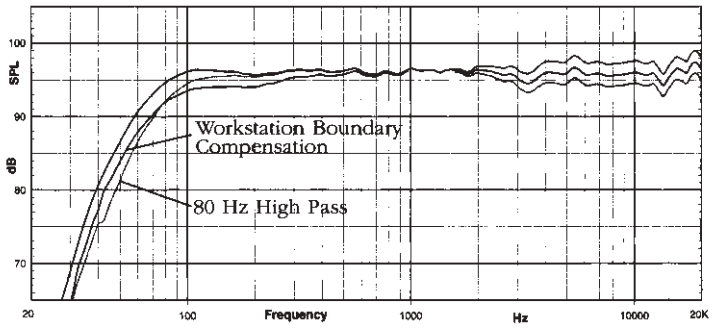
Bi-Amplified Power System

The LSR6325P-1 combines two high-power amplifier sections with an active crossover system. 100 watts of low-frequency power and 50 watts to the high-frequency section provide maximum dynamic range. A bi-color LED indicates power and any onset of clipping in either amplifier section. Active crossover circuitry results in a 24 dB/Octave Linkwitz-Riley Electro-acoustic response between low and high frequency devices for smooth transition in both the frequency and time domains. This results in exceptional imaging, a lack of time smear, and superior off-axis response linearity. A variable level control and dual input sensitivities allow use with a broad range of professional and semi-professional equipment. Balanced and unbalanced signals can be accommodated with an XLR input. An unbalanced RCA input is also provided. The frequency response can be gently tailored to compensate for placement and room absorption characteristics. Users can select between two different high frequency response contours. A low-frequency filter at 80 Hz can also be added for use with subwoofers that contain their own low pass filtering. A unique Boundary Compensation control adjusts the bass and mid-bass output for optimum performance when the system is positioned near a boundary, on the meter bridge of a console or work surface.

Harmonic Distortion @ 96 dB SPL/1m
(Distortion raised 20 dB)



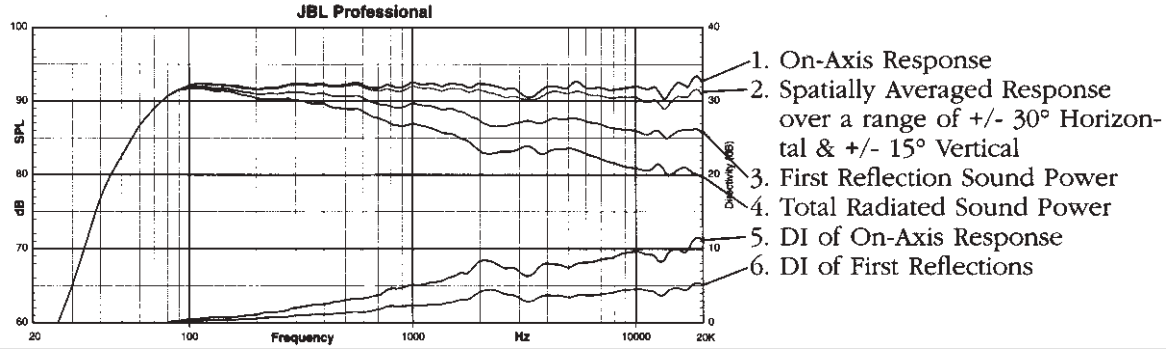
Low and High Frequency Adjustments



Linear Spatial Reference Design and Measurement Techniques

We all know that many loudspeakers have similar measurements but sound different. By going beyond simple on-axis frequency response measurements, JBL defines the ultimate performance specification for new systems - what it will sound like in your room. While other manufacturers use a single on-axis frequency response measurement taken at one point in space, JBL measures monitor systems over a sphere that encompasses all power radiated into the listening room - in every direction. This data reflects 1296 times the information of a single on-axis response curve. Seventy-two measurements of the direct sound field, the reflected sound field, and the reverberant field, the entire sound field heard by the listener, are correlated to optimize response at the listening position. In place of spectral smoothing used by some manufacturers, which actually conceals data, the JBL approach actually exposes flaws in systems, such as resonances, poor dispersion and other causes of off-axis coloration. The data shown below is a set of spatially measured graphs that are the heart of JBL's philosophy.

LSR6325P-1 Response Curves



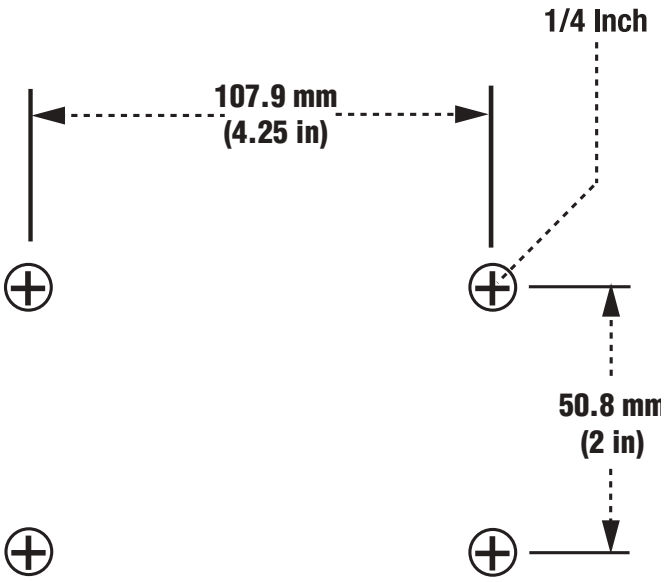
LSR6325P-1 Linear Spatial Reference Bi-Amplified Studio Monitor

Specifications:

System:	
Frequency Response (+1, -2 dB):	70 Hz - 20 kHz
Enclosure resonance frequency:	55 Hz
Low Frequency Extension:	User controls set to default
-3 dB:	65 Hz
-6 dB:	56 Hz
-10 dB:	48 Hz
Low - High Frequency Crossover:	2.3 kHz 4th-order Electroacoustic Linkwitz-Riley
Distortion, 96 dB SPL, 1 m:	
Mid-High Frequency (150 Hz - 20 kHz):	
2nd Harmonic:	<0.5%
3rd Harmonic:	<0.5%
Low Frequency (<150 Hz):	
2nd Harmonic:	<2%
3rd Harmonic:	<3%
Maximum SPL (90 Hz - 20 kHz):	>106 dB SPL / 1m
Maximum Peak SPL (90 Hz - 20 kHz):	>109 dB SPL / 1m
Signal Input:	XLR, Balanced RCA, unbalanced Postitive voltage applied to XLR Pin 2 (RCA tip) produces outward woofer motion.
Calibrated Input Sensitivity:	
XLR, +4 dBu:	96 dB SPL / 1 m
RCA, -10 dBV:	96 dB SPL / 1 m
AC Input Voltage:	115 /230 VAC, 50/60 Hz (User Selectable)
AC Input Voltage Operating Range:	+/- 15%
AC Input Connector:	IEC
Long-Term Maximum System Power:	110 watts (IEC265-5)
Self Generated Noise Level:	<10 dBA / 1 m
User Controls:	
High Frequency Control (3 kHz - 20 kHz):	+1.5 dB, 0 dB, -1.5 dB
Workstation Boundry Compensation:	Active or Bypass
Low Frequency Acoustic Alignment:	36 dB/Octave Butterworth bi-pass at 40 Hz 36 dB/Octave Bessel hi-pass at 80 Hz (For use with Subwoofer)
Variable Input Attenuation:	0 - 26 dB
Transducers:	
Low Frequency Diameter:	134 mm (5.25 in)
Voice Coil:	38 mm (1.5 in)
Magnet Type:	Ferrite with Integral Shielding
Cone Type:	Tempered Paper with Butyl Rubber Compliance
Nominal Impedance:	8 ohm
High Frequency Diameter:	25 mm (1 in) diaphragm
Voice Coil:	25 mm (1 in)
Magnet Type:	Ferrite with Integral Shielding
Diaphragm Type:	Damped Titanium Composite
Other Features:	Elliptical Oblate Spheroidal Waveguide
Nominal Impedance:	4 ohms
Amplifiers:	
Low Frequency:	
Topology:	Bridged Class A-B Monolithic
Sine Wave Power Rating:	100 watts (<0.1% THD into rated impedance)
THD+N, 1/2 Power:	<0.05%
High Frequency:	
Topology:	Class A-B, Monolithic
Sine Wave Power Rating:	50 watts (<0.1% THD into rated impedance)
THD + N, 1/2 Power:	<0.05%
Physical:	
Finish:	Black Powdercoat
Grille:	Perforated Steel
Enclosure Volume (net):	6.5 liter (0.2 cu. ft.)
Low Frequency Vent:	Dual Linear Dynamic Aperture
Baffle Construction:	Diecast Aluminum
Cabinet Construction:	Diecast Aluminum
Mounting:	4 threaded mounting points conforming to industry standard square pattern, 127 x 70 mm (5 x 2.75 in) 107.9 mm x 50.8 mm (4.25 x 2 in) center to center. M6 metric threads.
Net Weight:	7.7 kg (17 lb)
Dimensions (WxHxD):	17.3 x 26.9 x 24.1 cm (6.8 x 10.6 x 9.5 in)

Mounting Specifications:

The LSR6325P-1 has built-in mounting points for use with industry-standard mounting hardware.
The mounting points are located on the rear panel of the speaker system. The four threaded holes accept a 1/4" diameter machine screw with a pitch of 20 threads per-inch. The length of the screw should be a total of 3/8th inch plus the thickness of the mounting bracket.
Hole Pattern:



Caution: Unsafe mounting or overhead suspension of any heavy load can result in serious injury and equipment damage. Mounting of speakers should be done by qualified persons in accordance with all applicable local safety and construction standards. Be certain to follow the instructions provided by the manufacturer of the mounting bracket, be certain that it is capable of supporting the weight of the speaker to be mounted.

Notes:

All measurements unless otherwise stated are made anechoically in a 4π environment at 2 meters and are referenced to 1 meter by the inverse square law.

The reference measurement microphone position is located perpendicular to the centerline of the low and high frequency transducers, at the point 70 mm (2.7 in) above the center of the woofer.

Acoustic loading provided by the listening room increases Maximum SPL capabilities and Low Frequency Bass Extension as compared to stated anechoic values.

Distortion measurements are performed with the input voltage necessary to produce the stated "A" weighted SPL level at the stated measurement distance. Distortion figures refer to the maximum distortion measured in any 1/10th octave wide band in the stated frequency range.

JBL continually engages in research related to produce improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

LSR6325P-1 Linear Spatial Reference Bi-Amplified Studio Monitor

LSR6325P-1 5.1 Surround Sound System including the LSR6312SP Powered Studio Subwoofer and RMC™ Room Mode Correction Calibration Kit.

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