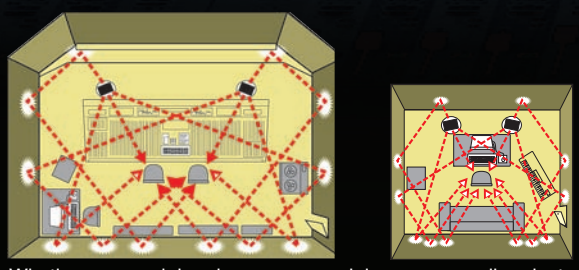

# LSR6300 Studio Monitors

## mix without boundaries

*what room?*

# Sound So Flat at the Mix Position, it's as if Someone Removed the Walls.

If control rooms had no walls, mixing would be a pleasure. Unfortunately, problems in the room dramatically color what you hear at the mix position. Walls and corners can affect response. And standing waves at the mix position can lead you to misjudge bass content. As a result, a speaker which measures flat in an anechoic chamber may "tell you a different story" in the room. The new JBL LSR6300 series goes beyond "accurate" all the way to "stunning" by incorporating features which reduce the effect of problems in the room. We start with patented JBL transducer and network technologies that provide ultra-flat response and exceptional dynamic capability. Then we incorporate features which help to overcome the contributions of the room. So even if you work in a small home studio, you'll have clear sound at the mix position. Of course, all models are THX® pm3™ approved for use in the most demanding production environments. With the new JBL LSR6300 series, mixing is a pleasure.



Whether you work in a large commercial room or small project studio, unless corrected, the effect of boundaries, reflections and room modes color what you hear the mix position.

# Five Building Blocks to Clear Sound

**It takes more than an accurate speaker system to have accurate response at the mix position. The key to accuracy is tackling the effect of boundaries, standing waves and reflections. In developing the LSR6300 series, JBL examined each problem in the environment and created the perfect solution. Even if you work in a small control room, an LSR6300 system will provide smooth accurate response at the mixer's chair.**

## LSR (Linear Spatial Reference Technology)

Linear Spatial Reference Technology ensures that our speakers sound flat at the mix position. The exact geometry of the wave guide, the interaction of the woofer and tweeter, and the network are designed to provide an accurate listening window of +/- 30 degree horizontal, +/- 15 degree vertical. As a result, the reflected sound which reaches the mix position is smooth and accurate.

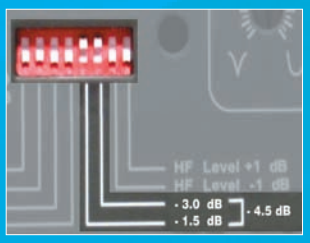
## RMC™ (Room Mode Correction)

The LSR6328P and LSR6312SP Subwoofer are equipped with RMC – JBL's ingenious method of zeroing-out bass problems at the mix position caused by room modes. A built-in 1/10$^{th}$ octave parametric equalizer allows you to correct problems below 100 Hz. The RMC Calibration Kit gives you everything you need to identify problematic room modes and tune your system. The LSR6325P-1 and LSR6332 enjoy the benefits of RMC when used in a system with the LSR6312SP Subwoofer.



## Built-in Boundary Compensation

With the advent of multi-channel production, trying to find a place for more speakers, and space limitations, may demand the positioning of the speaker be compromised. JBL's powered models include boundary compensation switches that can be used to offset the increase in bass-response, which occurs when the speaker is placed near a wall, in a corner or on a work surface. Simply set the switch which corresponds to your condition and flat response is restored.




## Mounting Option

Since wall mounting gives more options for speaker placement, each speaker in the LSR line is ready to mount. Enclosures are reinforced and mounting points are provided for use with readily available, industry-standard mounting brackets. Mounting hardware specs are available at www.jblpro.com/LSR

## Handles

If you move your LSR6328P speakers from one environment to another, you'll appreciate its comfortable integrated handles, which allow you to easily position the loudspeaker and optimize its performance.

# Introducing the LSR6300 Line

**The JBL LSR6300 professional loudspeakers supply the accuracy and performance needed in demanding music, post audio and broadcast applications. Each model provides ultra-flat response, extraordinary-SPL capability, and technology to optimize performance in any size production environment. All models are shielded, ready for mounting and THX® pm3™ approved.**

The **LSR6328P** is THE choice for stereo and multi-channel music and post audio applications where accuracy and high SPL are required. With ruler-flat +1 dB/-1.5 dB response from 50 Hz to 20 kHz, low frequency extension to 36 Hz, boundary compensation and JBL's new RMC system, the LSR6328P gives you exceptional low frequency performance in any room. The system is bi-amplified with a 250 Watt LF amplifier and a 120 Watt HF amplifier. Based around JBL's patented 8" Differential Drive® carbon-fiber woofer and a 1" titanium composite tweeter, the system produces smooth response and extraordinary SPL. Wall mounting provisions make the LSR6328P perfect for installation in multi-channel editorial rooms.

**LSR6328P**

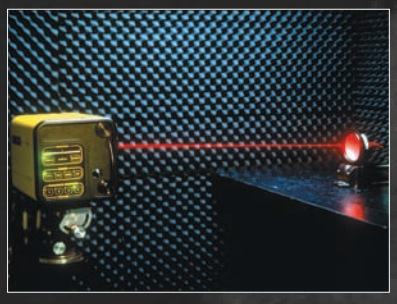
**LSR6325P-1**

The compact **LSR6325P-1** provides exceptional performance for use in applications where accuracy is a must, but space is limited. With a 5.25" high-excursion woofer, 1" damped titanium composite tweeter, and 150 Watts of amplification, it outperforms many larger systems. A boundary compensation setting adjusts response when used on workstation surfaces. When used with the LSR6312SP Subwoofer, the LSR6325P-1 is the heart of an exceptionally accurate yet space efficient full-range system.

# The JBL Tradition Continues

JBL Professional is the leader in loudspeaker technology since 1946. The JBL Professional campus in Northridge, California is home to the science and resources which fuel JBL excellence. JBL is one of only a handful of U.S loud-speaker companies which manufactures transducer components in-house. The use of in-house designed and produced components ensures product consistency and long-term reliability. JBL holds patents on unique loud-speaker speaker technologies, many of which are applied in the LSR line. We have invest-ed heavily in the tools to measure and evaluate product in development. These tools allow us to discover opportunities for better performance, cost savings, and ensure that every product which hits the market meets our exacting criteria. The anechoic chamber is an

For critical listening, JBL's Speaker Shuffler swaps pairs of speakers in under 3 seconds.



The fine structure of cone and dome motion can be easily viewed through the use of Scanning Doppler Laser Techniques.

Several anechoic chambers on the JBL Campus allow detailed measurement and evaluation of system response.

**LSR6332**

The **LSR6312SP** powered subwoofer is based on a 12" woofer with JBL's patented Differential Drive® and 260 Watts of power. An integral bass-management system provides all the features you need for today's multi-format surround production including: LCR and Direct LFE inputs, summed output for chaining multiple subwoofers, -4 dB alignment setting, and JBL's new RMC Room Mode Correction system. RMC Calibration Kit included.

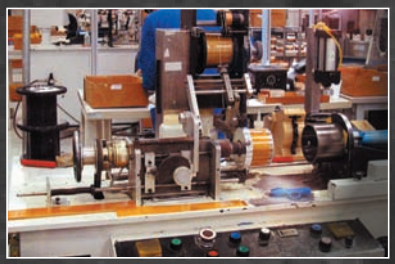
**LSR6312P**

If you need a larger monitor with high SPL, for mid-field, soffit or behind the screen applications, the LSR6332 is your choice. This three-way non-powered system can handle 200 Watts continuous pink noise/800 Watts peak and will generate 112 dB SPL at 1 meter. The LSR6332 incorporates a 12" Neodymium Differential Drive® NDD™ dual coil woofer, 5" Kevlar™ midrange speaker and 1" titanium composite tweeter. The system is exceptionally flat, +1 dB/ –1.5 dB from 60 Hz to 22 kHz with LF extension to 35 Hz. User features include a –1 dB HF level setting, and dual 5-way binding posts for bi-wire capability.

essential tool for performance measurement. Without it, all you can do is predict. While anechoic chambers are very expensive and some manufacturers have none of their own, JBL has many anechoic chambers on its campus. Since position in the room influences the perception of the speaker, critical A/B comparison evaluations require that every speaker being judged is positioned in exactly the same spot in the room. Since no solution exists which allows rapid swapping of pairs of speakers, JBL manufactured the only known Speaker Shuffler, a computer-operated device capable of physically swapping pairs of speakers in the space of 3 seconds. JBL's technical staff is second-to-none. Our engineers are respected by their peers in the industry and have won technical awards and honors from the Academy of Motion Pictures Arts and Sciences and from the Audio Engineering Society for designs which have advanced the professional audio industry. Because JBL Professional systems are first call in cinema applications, and used by the world's top dubbing stages, you can be sure the program created using the new LSR6300 systems will translate perfectly to the screen.

*"Academy Award" and "Oscar" image © AMPAS®

The Academy of Motion Picture Arts and Sciences chose JBL cinema systems for its theater.

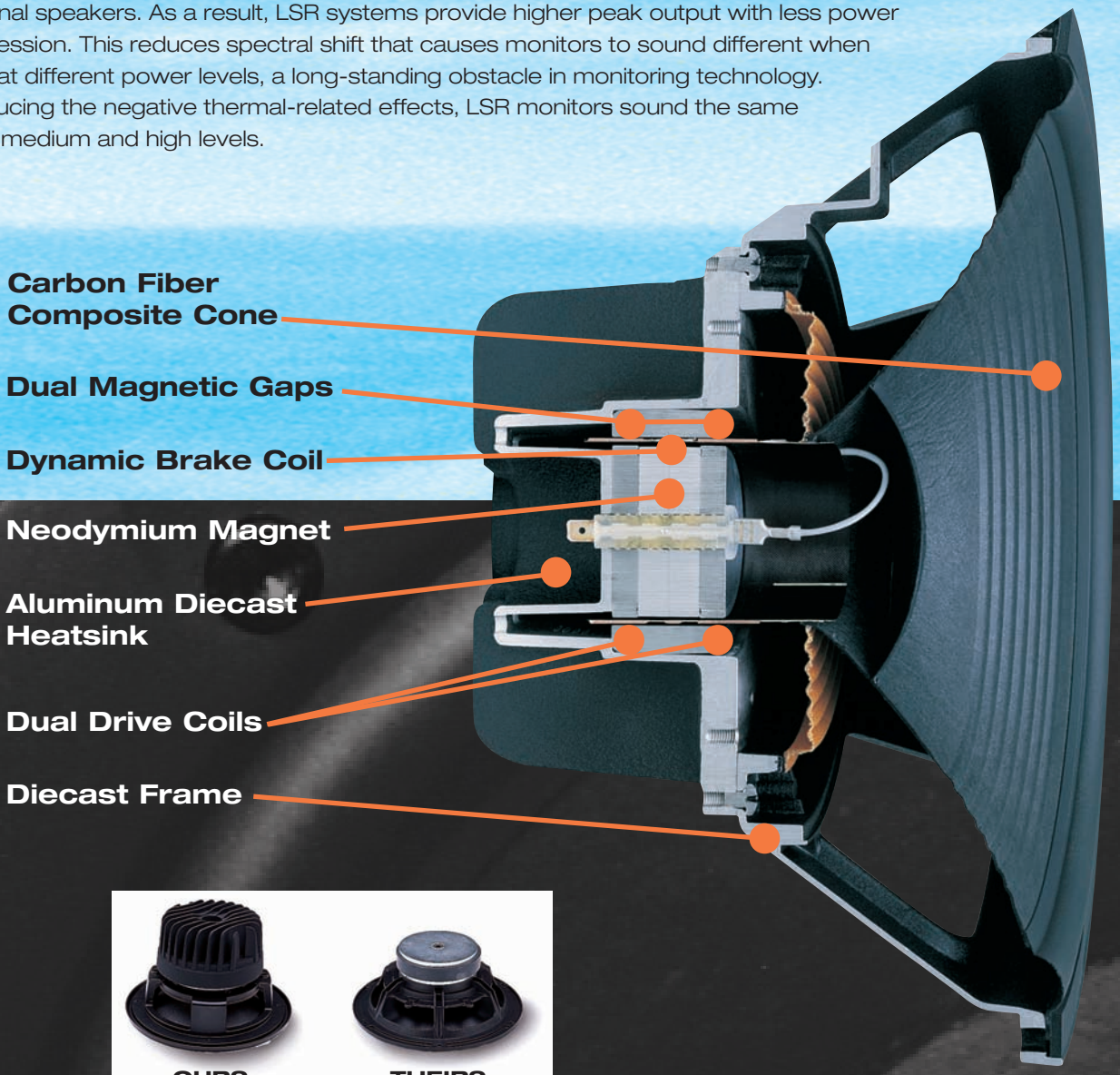


JBL excellence is evident in the manufacturing of its custom drivers.

# The Outstanding Performance of the New LSR6300 Models is Due to a Host of Revolutionary JBL Innovations

**Differential Drive® Technology**

The LSR6300 line incorporates the single most significant advance in monitor history: JBL's patented Differential Drive Technology.* Providing unparalleled performance, the woofer permanently dispels the notion that better linearity, higher power handling and greater dynamic accuracy are somehow unobtainable. JBL's Differential Drive uses two drive coils with twice the thermal surface area of traditional speakers. As a result, LSR systems provide higher peak output with less power compression. This reduces spectral shift that causes monitors to sound different when driven at different power levels, a long-standing obstacle in monitoring technology. By reducing the negative thermal-related effects, LSR monitors sound the same at low, medium and high levels.







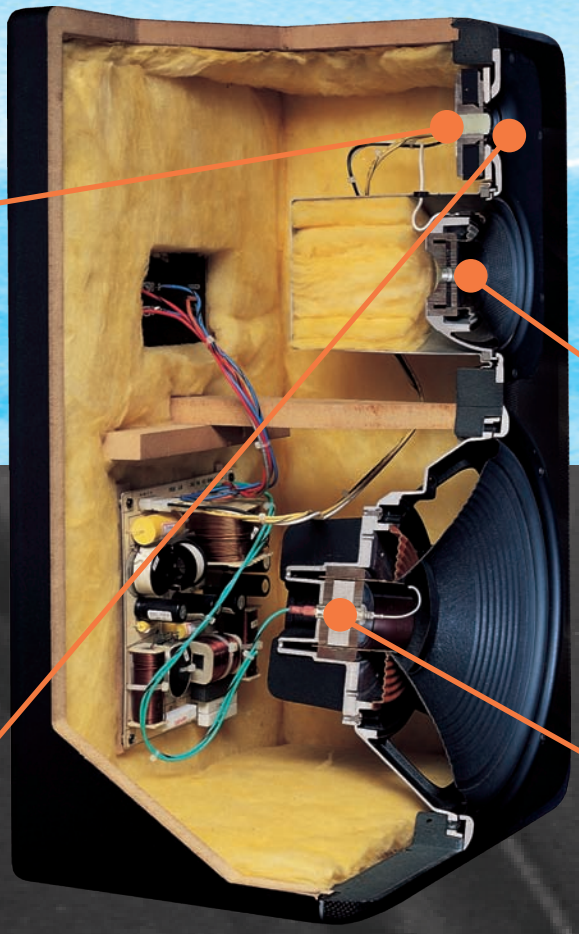
JBL's patented Differential Drive® (left) vs. competitive "High Performance" transducer (right).

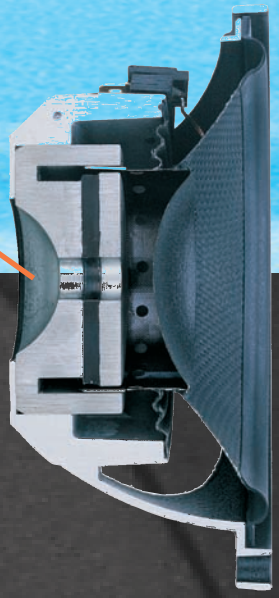
**Each model in the LSR Line features dramatic technical breakthroughs that set out to develop the long-awaited answer to the question: "Why do moni- is based on JBL's technology called Linear Spatial Reference, or LSR. LSR the listening environment in every direction. Rather than making a single space. A reference monitor developed with these measurements in mind providing a more stable image and less off-axis distortion.**

**Before JBL set out to solve the problems in the room, we**

**Composite High Frequency Device**
Using patented technology, the 1" magnetically shielded dome high frequency device incorporates titanium and composite materials to improve transient response and reduce distortion. The result: By reducing distortion in the lower operating range where the human ear is most sensitive, listener fatigue is dramatically reduced.

**C500G Midrange Transducer**
The midrange is a 2" neodymium motor with a 5-inch woven Kevlar™ cone. The powerful motor structure was chosen to support the low crossover point to the woofer. In order to achieve the goal of accurate spatial response, the cross-over points are located at 250 Hz and 2.2 kHz. These transition points match the directivity characteristics of the three transducers for optimum spatial response. The result: Absolute pinpoint accuracy.





**Elliptical Oblate Speroidal (EOS) Waveguide**
Designed for a targeted listening window of +/- 30 degrees horizontally and +/- 15 degrees vertically, the EOS provides smooth response through the entire listening window within 1.5 dB of the on-axis response. The result: The listener, even far off-axis, can hear an accurate representation of the on-axis response.

**Dynamic Braking**
LSR6300 low frequency transducers* are equipped with an electromagnetic braking coil that reduces the effects of extreme excursion with high transient material. This causes more linear compliance resulting in lower distortion, more accurate reproduction and increased reliability.
* Not included in LSR6325P-1

**have permanently raised the bar for monitor performance. JBL engineers tors that measure the same sound so different?" The JBL LSR product line measures a monitor over a sphere that includes all energy radiated into on-axis measurement, JBL measures response from 72 different points in offers improved performance in a far broader variety of acoustic spaces,**

**maximized the performance of every component in the system.**

# Specifications




| FEATURES | LSR6325P-1 | LSR6328P | LSR6332 | LSR6312SP |
|---|---|---|---|---|
| LSR Technology | Yes | Yes | Yes | - - - |
| Boundary Compensation | 1 Setting | 3 Settings | No | 1 Setting |
| RMC™ Room Mode Correction | No | Yes | No | Yes |
| Mounting Points* | Yes | Yes | Yes | Yes |
| Magnetic Shielding | Yes | Yes | Yes | No |
| Handles | No | Yes | No | No |
| HF Adjust | +1.5 dB / -1.5 dB | +1 dB / -1 dB | -1 dB | - - - |
| Inputs | XLR, RCA | XLR, 1/4" | Dual 5-way Binding post | XLR, 1/4" |

*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.

## SPECIFICATIONS

| | | | | |
|---|---|---|---|---|
| Frequency Response | (+1, -2 dB) | (+1, -1.5 dB) | (+1, -1.5 dB) | (-6 dB) |
| | 70 Hz - 20 kHz | 50 Hz - 20 kHz | 60 Hz - 22 kHz | 28 Hz - 80 Hz |
| Low Frequency Extension | -10 dB : 48 Hz | -10 dB : 36 Hz | -10 dB : 35 Hz | -10 dB : 26 Hz |
| Amplifier Power (LF/HF) | 100w/ 50w | 250w/120w | - - - | 260w |
| SPL (Continuous/Peak) | SPL: 106 dB / 109 dB | SPL: 108 dB / 111 dB | - - - | SPL: 112 dB / 115 dB |
| Long-Term Maximum Power (Continuous/Peak) | - - - | - - - | 200w / 800w | - - - |
| Drivers (LF, MF, HF) | 5.25" / 1" | 8" / 1" | 12" / 5" / 1" | 12" |
| Sensitivity | 96 dB / 1m | 96 dB / 1m | 93 dB/2.83 V/1m (90 dB/1w/1m) | 96 dB / 1m |
| System Impedance | - - - | - - - | 4 ohms | - - - |
| Crossover Frequencies | 2.3 kHz | 1.7 kHz | 250 Hz / 2.2 kHz | 80 Hz |
| Finish | black powdercoat | dark graphite | dark graphite | dark graphite |
| Dimensions (HxWxD) | 269 x 173 x 241 mm | 406 x 330 x 325 mm | 635 x 394 x 292 mm | 635 x 394 x 292 mm |
| | 10.6 x 6.8 x 9.5 in | 16 x 13 x 12.75 in | 25 x 15.5 x 11.5 in | 25 x 15.5 x 11.5 in |
| Weight | 7.7 kg (17 lb) | 17.7 kg (39 lb) | 20.4 kg (45 lb) | 22.7 kg (50 lb) |
| THX PM3 Certified* | Yes | Yes | Yes | Yes |

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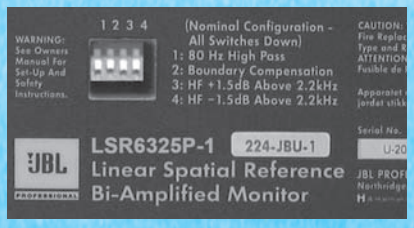



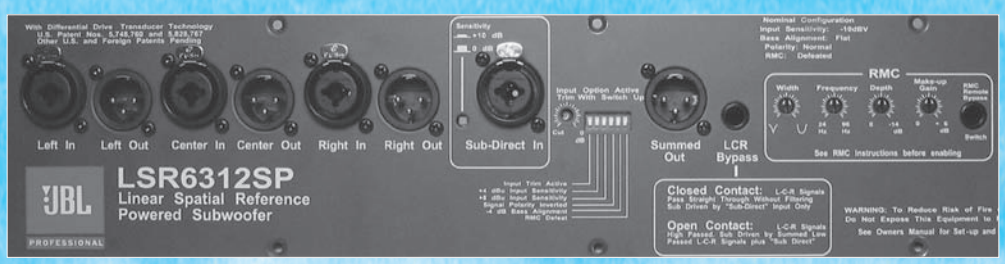




CAT LSR 6300

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