

BASS EXPLORATION

JBL LSR6328P speakers
and LSR6312SP subwoofer

By Chris Gill

THE BIGGEST challenge facing home studio recording engineers is that most rooms have serious acoustic flaws. Low-frequency dips caused by floor or wall reflections obscure key bass frequencies, and frequency peaks caused by room resonances create standing waves at the mix position. Either of these problems can make a room an unsuitable environment for recording and mixing.

The cheapest and easiest solutions are moving the speakers or changing your listening location, a hit-or-miss proposition that can take hours. You could also install bass traps, sound absorption panels and other acoustic treatment products in your studio, but these items can be expensive and may not solve your problems if they're installed improperly.

Features

JBL's new LSR6328P speakers and LSR6312SP subwoofer offer another option for creating an acoustic environment with accurate, flat frequency response at the mix position. The key new feature of these speakers is the company's trademarked RMC Room Mode Correction System. (JBL's RMC Calibration Kit is included with the LSR6312SP subwoofer, but it's also available separately should you opt for only the LSR6328P speakers.) Consisting of a specialized sound-level meter and calibration CD, the kit lets you measure the frequency response. Should your readings identify excessive low-frequency resonance peaks, you can flatten each speaker's response by adjusting a built-in 1/10th-octave parametric EQ with adjustable frequency (96–24Hz), width and depth (cut only) controls. Charts and a width template make it easy to identify the ideal EQ settings for the RMC controls.

The speakers also feature JBL's Linear Spatial Reference (LSR) Technology, which



ensures sound reflected to you at the mix position is also accurate, and provides a larger than average "sweet spot" where the sound remains accurate and flat. The dispersion zone is +/-30 degrees horizontal and +/-15 degrees vertical, giving you a wider variety of room placement options that allow you to minimize low frequency dips without worrying as much about how the placement is going to affect the sound at the mix position.

Sound

I installed a pair of LSR6328P speakers and the LSR6312SP subwoofer in an 11-by-12-by-8-foot room, placing the speakers on stands near a wall behind my mixing desk and digital audio workstation setup. Using the RMC Calibration Kit, I tested the frequency response of the speakers and subwoofer individually. The initial testing took about 15 minutes and revealed that my right speaker produced a rather significant -7dB dip centered at 85Hz. I moved the speaker a foot closer to the nearest corner,

tested the speakers again and found that this new position produced acceptable results. Fortunately, my room produced no significant peaks so no adjustments to the RMC section were necessary. In less than an hour my previously

flawed room was transformed into a professional listening environment.

The LSR6328P offers an eight-inch woofer powered by a 250-watt amp and a one-inch tweeter powered by a 120-watt amp, and the LSR6312SP features a 12-inch woofer and 260-watt amp. With speakers this big and amplification this powerful, the system can pump out impressive, wall-shaking volume levels, but even at low volumes it sounds punchy and full. Playing a variety of commercial CDs through the system, I was immediately pleased by the crisp, well-artic-

ENVIRONMENTAL DETECTION:
JBL monitor pair and subwoofer (below)
with RMC Room Mode Correction System



ulated highs and tight, defined bass the speakers produced.

When I played some of my own recordings, the speakers revealed flaws, particularly below 100Hz, that I hadn't noticed on the similar-size monitors I've used for the past two years. My guitar parts had much better midrange and soundfield definition as well, allowing me to perceive nuances I hadn't



noticed since I initially recorded the tracks.

The LSR6312SP subwoofer cranks out powerful, deep bass tones with tight definition and none of the flabby, wobbly overtones often produced by cheaper subwoofers. But as much as I loved the sound of the complete system with the subwoofer, I found the bass output of the LSR6328P speakers, which extends to 36Hz without the sub, more than sufficient for bottom-feeding metal and hard rock.

The Bottom Line

After using these speakers only a few weeks, I noticed a considerable improvement in the sound of my mixes. The extra cost of the JBLs is minimal if you're truly serious about producing professional recordings, and chances are you'll see a substantial return on that investment more quickly if you choose this system from the start. ■

PRO: Tunable RMC system provides flat, accurate sound in any environment; extended bass response without sub; large "sweet spot"

CON: Expensive; back-mounted power switch difficult to reach when speakers are wall-mounted

KA-CHING!
LIST PRICES: LSR6328P, \$1,339.00 (each); LSR6312SP, \$1,499.00
MANUFACTURER: JBL, 8400 Balboa Blvd., Northridge, CA 91329; (818) 894-8850; jblpro.com