



JBL LSR 4326P

STUDIO MONITORS

JBL's Room Mode Convection and monitor networking technologies have come of age. SIMON TILLBROOK has his space connected.

Like so many other studio engineers the name JBL is one that I have greater associations with from times past. My early memories of studio sessions involved JBL monitoring, but since those early experiences I have not seen the name in the critical studio-monitoring arena. However, JBL has once again made assaults on this competitive area with the introduction of a new range of monitors with the prefix LSR (Linear Spatial Reference).

The larger LSR6300 series has been with us for a while, but now we have the smaller LSR4300. There are two sizes, one with an eight-inch woofer and the other with a six and a quarter-inch woofer. The latter is the model under review, the JBL LSR4326P.

Overview

The JBL LSR4326P is 236mm x 387mm x 262mm and constructed from coated 19mm MDF, which gives them a robust weighty feel (13kg). Mounting points and carry handles are provided within the enclosure.

It's a rear-ported design with an injection moulded front baffle that incorporates a wave guide. This helps to produce smoother off-axis response, resulting in greater accuracy at the mix position. With the LSR4326P JBL claim an off axis range of ± 30 degrees horizontal and ± 15 degrees vertical.

The magnetically-shielded LSR4326P is bi-amped with a 150W provided to the 6.25-inch neodymium woofer, and 70W to the 1-inch silk domed tweeter. This combination delivers a frequency response of 55Hz to 20kHz ± 1.5 dB and a maximum continuous SPL of 106dB/1m.

Rear Panel

When you flip the LSR4326P around to look at the rear, as well as the large heatsink surrounded rear port, a healthy array of connection and function possibilities are presented to you.

Analogue inputs are switchable between +4dBu and -10dBV. Balanced XLR sits next to a TRS socket that can accept both balanced and unbalanced signals. Digital inputs and outputs (for chaining digital signals between monitors) come in the form of XLR AES and RCA SPDIF.

There is a set of five LEDs to indicate which input is

active, and in the case of digital inputs, which channel is in use.

The JBL LRS4326P can be networked using the HiQnet protocol, and so there are two CAT 5 connectors for this purpose. Configurations up to eight channels are catered for, and there is a set of eight dip switches used to identify which channel the monitor is occupying in the network for ID purposes. Further network controls are available through a PC, which connects through the provided USB port. We will look at this software a little later in the review.

Finally there is a mini jack connector that is used by an omnidirectional mic for the purpose of monitor alignment. A system called RMC (Room Mode Correction) is used by the LSR range of monitors, and again we will look in detail later.

Front Panel

Below the two drivers on the front of the LSR4326P is a horizontal 31 segment LED level meter. The scale is dBFS and runs from -70 to 0. This sits above a series of function buttons.

The first is a power button. Pushing this on the first monitor in a network system would power them all. A solo button will isolate that speaker channel in the network, muting all others.

The button labelled RMC is used to both initiate the calibration process as well as bypass the results of it (more coming... honest!)

An EQ On button activates the LF and HF eq sections that are independently accessed with the following two function buttons LF and HF. The amount of boost and cut is controlled with a pair of + and - value buttons in 0.25dB steps.

As well as this EQ function there is a Preset button that scrolls through six factory set EQ set-ups. You can store your own presets through the accompanying software.

Last an Input selection button moves through the source input options. The selected input would be confirmed on the rear LED indicators and the front panel meter display.

The software is available for Windows XP, 2000, and, at the time of writing, is now available for Macintosh OS X. Visit www.jblpro.com/lsr

THE REVIEWER

Simon Tillbrook is the Principal Music Tutor at Islington Music Workshop, in London. The rest of his time is spent as a freelance engineer, mainly in the USA.

JBL LSR4326P



RMC System

These JBL LSR4326P monitors, like so many other small powered monitors, find their way into all types of audio environment, most of which have very little if any real acoustic treatment. Even those with so-called treatment often exhibit less than ideal frequency handling, and at worst standing waves, particularly low frequency problems.

The RMC system is designed to iron out these frequency issues so the monitors deliver a true picture whatever the environmental issues. This would allow you to carry the LSR4326P monitors to different record/mix situations and be able to rely on minimal room interference, and so have consistency with your monitoring situation.

In the supplied accessory kit we have an omnidirectional microphone with clip, control centre software disk, USB cable and remote control.

Once you have positioned your LSR4326P monitors, simply position the microphone in the engineer sweet spot, then push and hold the RMC button on the first monitor in your network chain.

A series of frequency sweeps is played through each speaker in turn, and together. The on-board processor then employs parametric filters at any of 73 different frequency points from 20Hz to 160Hz with fully variable Q and 3 to 12dB of attenuation. In addition during this process, individual monitor channels can be trimmed in 0.25dB SPL increments to balance the levels within the monitor system setup.

This process can be done for a single monitor, or systems up to eight main channels and two sub-woofers.

Control Centre Software

There are two things to say about the control centre software straightaway. You do not need this to fully run a networked LSR monitor system, and the software is only available for PC. So

many people who came into contact with the JBL system brought up this latter point, and I am unaware of any Mac version being made available in the future.

The interface or Room View shows the networked array of LSR monitors in relation to the engineer listening position. This information can be picked up through the network and transferred to the software via the USB link. Each speaker has a dBFS meter next to it, and you can expand a full set of speaker options by selecting a specific channel.

This will display the monitors level control, input source, an RMC section with initialise button and frequency result display, and finally an EQ section relating to the LF and HF EQ that is available on each LSR4326P.

Once calibrated, you can run the entire system from an infrared remote control, so you can solo individual channels and change volume for your entire set-up.

In Use

I tried the RMC system in a few treated control rooms, a small production room with very little treatment and what was in all honesty a large box of a room with quite extreme room mode issues to address.

This JBL RMC system was really very impressive. In all cases, in particular the very unfair box the LSR4326Ps were put into, the results gave consistent delivery from the speakers.

When you push the RMC button on the master monitor, you can truly appreciate just how much the system has managed to achieve.

The LSR4326Ps are quite bright, full, detailed monitors. There is good detail and clarity through the mids, and this smooth characteristic continued through the lower frequencies.

Moving from room to room I felt confident that the changes in the EQ applied with the RMC system gave me good continuity. I could

confidently trust what the LSR4326Ps were giving to me, and the smooth detailed nature of the delivery lent itself well to extended use. I used the LSR4326P monitors through a few lengthy sessions, and felt just as fresh as if I was using my normal monitoring set-up.

I would love to try the LSR4326P monitors in a surround configuration to see both how the RMC system copes and how detailed transition between channels fairs. After living with the LSR4326Ps I have no reason to doubt that this would be an equally pleasant experience.

Conclusion

In the minds of all who had the opportunity to hear them, JBL has produced a monitor that once again will attract many fans from all areas of the audio world.

It is undeniably the RMC function that stands out here. On paper this looks very good, but these systems often disappoint, but not in this case. Even when pushed outside of reasonable operational limits the RMC system on the LSR4326Ps surprised and delivered.

The JBL LSR4326P with the integrated RMC system is worthy of an audition for any audio application, and the price puts this well designed monitor at the top end of the value for money list as well.

INFORMATION

Ⓣ JBL LSR 4326P per pair £851.04 + VAT; \$1399 + Tax.
JBL Professional (USA).
☎ +1 818 894 8850.
Ⓜ www.jblpro.com

UK Distributor: Harman Pro UK.
☎ +44 (0)1707 668 222.
Ⓜ www.harmanprouk.com

Rental & Sales Audio Solutions



Shure UHF-R
system with
Beta 87a Microphone
capsules

Call for a
special introductory
price to rent
+44 (0)20 8795 1866

- Music
- Live Events
- Broadcast
- Reality
- Theatre
- News



www.gearhousebroadcast.com



LONDON | LOS ANGELES | SYDNEY

EQUIPMENT RENTAL | EQUIPMENT SALES | PROJECT SOLUTIONS | SYSTEMS INTEGRATION