



LIGHT THERAPY

Mackie SRM450v2 active monitor

BY DANNY MILES

IF YOU'RE SHORT FOR TIME, here's the review in a nutshell: Mackie's SRM450v2 Active Monitor is a great-sounding powered speaker that's easy to haul around. And for those of us who go pale at the thought of pulling a rack full of power amps out of the van, that information alone might make you want to check out the SRM450v2. But there's more to this story than a back-friendly cabinet. The SRM450v2 boasts a host of little innovations that help it produce consistently good sound.

FEATURES

THE SRM450V2 is a two-way biamped system. For those new to this terminology, a biamped speaker features separate built-in amps for the low- and high-frequency drivers. The enclosure has a 12-inch low-frequency driver and a 1 3/4-inch titanium compression high-frequency driver capable of handling 300 and 100 watts, respectively. The high-freq driver features a wide-dispersal horn designed to project sound all around the room, allowing listeners outside the speaker's "sweet spot" to hear you in all your glory.

Mackie's promo materials make a point of saying that "active" means more than "powered," and the company has a good case for this claim. In addition to the internal amplifier section, which boasts a large toroidal transformer and beefy storage capacitors, the SRM450v2 sports some pretty sophisticated electronics, such as a Linkwitz-Riley active electronic, that help improve performance and clarity.

The speakers are also time-aligned to compensate for the inherent problem of projecting low and high frequencies. In most designs, the tweeter is situated farther back in the cabinet than the woofer, so that the bass frequencies reach the listener first. In the SRM450v2, Mackie has moved the high-frequency driver forward in relation to the woofer, so that lows and highs reach the listeners' ears at the same time. In addition, the woofer interacts with the amplifier using a servo-feedback damping circuit for more consistent bass response.

One of the SRM450v2's most im-

pressive features isn't in the electronics but rather the cabinet. The shape of the box and the airflow within it maximize response, and its asymmetrical monocone design has no parallel surfaces, so that reflections don't interfere with the speakers' response. The cabinet is very sturdy, made of a lightweight plastic that seems more than up for the rigors of the road, despite its light weight. In addition, the speaker can be pole mounted, stood on its base or side and used onstage as a floor monitor.

Controls and connections are on the rear panel. These include an XLR balanced input and an XLR parallel pass-through that allows multiple units to be chained together, the power connection and power switch, the level control (more on this in a moment), and two EQ switches: contour, which adjusts response by giving a 3dB boost below 100Hz and above 12kHz; and low cut, which rolls off frequencies below 75Hz to reduce problems such as rumbling.

The level control is there to optimize the power amps' response to various sources. It can be boosted high enough to accept a mic directly—a handy feature for singer songwriters—and an LED helps you set levels correctly. One cool extra is the Timed Turnoff switch: when activated, the switch turns off the speaker after three minutes without an input signal. If the circuit senses an input level of as little as -45dB, the amps come back on automatically. LEDs indicate signal present, power on, audio peaks and thermal overload, a situation in which the electronics automatically shut off to cool down. It would have been nice to see those on the front panel, which has no controls but does feature an LED power indicator.

PERFORMANCE

FED A RANGE of signals from a Yamaha digital mixer, the SRM450v2 impressed me with its tight sound and ability to kick loudly without distortion. The amp is optimized for the 450's individual drivers, and the crossover helps the SRM deliver tight, clear and punchy sound with plenty of headroom, impressive volume and great bass response given the speaker's size. The system can be coupled to a subwoofer if you need



The high-freq driver's wide-dispersal horn projects sound all around the room.

The cabinet's shape and the airflow within it maximize response, while its asymmetrical design eliminates reflections that can produce frequency aberrations.

The 12-inch low-frequency driver employs a servo-feedback damping circuit for more consistent bass response.

MACKIE SRM450V2 ACTIVE MONITOR

LIST PRICE: \$899.00

MANUFACTURER: Mackie, mackie.com

LOW-FREQUENCY DRIVER: 12 inches, with five-inch voice coil

HIGH-FREQUENCY DRIVER: 1 3/4-inch diaphragm; 1-inch diameter horn exit

POWER HANDLING: 450 watts RMS

SENSITIVITY: 98dB

FREQUENCY RESPONSE (-3 dB): 55Hz-18kHz

FREQUENCY RANGE (-10 dB): 45Hz-20kHz

MAX SPL LONG-TERM: 124dB

MAX SPL PEAK: 127dB

CROSSOVER: Linkwitz-Riley, 24 dB/octave @ 1,600Hz

TOTAL AMP POWER: 400 watts (100 for high frequencies, 300 for low frequencies)

CONNECTIONS: Balanced XLR input; XLR pass-through/output

more lows. The speakers' ability to disperse sound over 90 degrees from the center is also a plus. The sound from my pair of SRM450v2s filled the room without having to crank the speakers up too loud.

Setup was easy, and I applaud Mackie's typically well-illustrated owner's manual and extensive online info. These guys know how to talk to regular musicians as well as techies, but they don't dumb it down, either.

THE BOTTOM LINE

THERE ARE A lot of good powered monitors on the market these days, but the Mackie SRM450v2 stands out because of its combination of light weight, smart design, and good tone. It's not cheap, but when you consider the company's reputation for reliability, this speaker is worth a serious audition.

PRO	CON
EXCELLENT SOUND; STURDY CONSTRUCTION; VERSATILITY	HAS ONLY XLR INPUTS; REAR-MOUNTED CONTROLS MAY BE HARD TO ACCESS IN SOME INSTALLATIONS