

Re-Activating the Legendary SRM

by Dana Ash

Over a decade ago, Greg Mackie and a dedicated team of engineers set out to create a portable loudspeaker with studio monitor sound quality. After extensive research and development, Mackie and his team came up with a design for a loudspeaker that ensured everyone attending a show would hear a good mix and in doing so created a movement in live sound: the SRM450. Now, Mackie Brand Vice President John Boudreau, Mackie lead engineer Jeff Rocha and a team of dedicated audio gurus are re-activating this movement

with the creation of the new SRMv2 Series portable Active loudspeakers.

“Mackie has employed some unique solutions in our SRMv2 Series to make it better than the original and out-perform any loudspeaker in its class,” says Boudreau. “We used sophisticated new components, and implemented innovative new technology to create a loudspeaker that sounds and performs phenomenally. The SRMv2 Series delivers SRM studio monitor sound quality, but with more definition and clarity, at even higher sound pressure levels.”



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SRM450v2



SRM350v2

What Makes the SRMv2 the only Loudspeaker with Studio Monitor Performance?

Ultra-Wide Dispersion

The SRMv2 Series boasts an ultra-wide dispersion pattern. The original SRM and subsequent SRMv2 design was in part inspired by the exponential horn design of big, high-output studio monitors. But while this design allowed for smoother on-axis response and lower distortion, if the listener was off-axis, it could be subject to poor pattern control, resulting in muddy, dull, uneven sound. Since many or most of the audience in a live venue listens off-axis, Mackie found this compromise unacceptable in a loudspeaker.

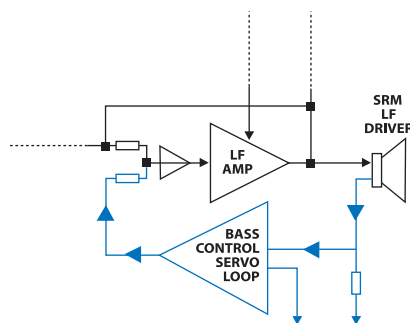
Mackie engineers found a way to take advantage of an exponential horn's smooth response, while solving the problem of poor pattern control, by employing a multi-cell horn aperture and exponential high frequency waveguide.

“Our researchers provided the mathematical calculations and modeling that led us to create a two-piece vaned horn throat aperture and a separate exponential/conical horn,” says Boudreau. “By placing the driver right next to the fins, we minimized reflection problems.”

This design and the new titanium compression driver of the SRMv2 Series allow the SRMv2 loudspeakers to project sound widely and evenly, with improved imaging, depth of field and definition.

Stunning Bass

The SRM450v2 servo-feedback damping electronic circuit “locks” the woofer in place with the positive and negative outputs of the amplifier in a way that no external amp and passive woofer can ever achieve. This creates a solid direct-coupling that delivers extremely deep bass from a small cabinet. With the SRM450v2, Mackie has added an all new neodymium woofer



and improved upon the excellent bass response of the original. Neodymium magnets are lighter in mass and therefore faster than ceramics plus it has a 3 inch voice coil. When a speaker is asked to handle lots of power, removing heat from the voice coil ensures not only reliability, but sound quality. More voice coil, more heat dissipation, and ultimately an SRMv2 that sounds the same even after long hours of use at near peak volumes.

Super-Low Distortion

The signature Mackie Active technology remains at the heart of the new design, but the power driving the Active design has changed. For the SRMv2, Mackie combined new Class-D amplifier topology with their signature Fast Recovery technology. With this Class-D Fast Recovery amplification, SRMv2 loudspeakers operate more efficiently than the originals, delivering much more power and clarity. They handle maximum volume—and associated

POWER



400W integrated Mackie Class-D, Fast Recovery amplification

CLARITY



Titanium compression driver, multi-cell aperture and built-in waveguide

PUNCH



Servo-feedback controlled Neodymium woofer with 3-inch voice coil

heat—with ease, so there's no unwanted noise, and no thermal problems. As a bonus, the Class-D design eliminates the need for massive heat sinks, and its ultra-efficient switching power supply is transformerless, making the SRMv2 lighter than its predecessor.

Legendary Active Electronics

With Mackie's Active design, the SRM450v2 and SRM350v2 loudspeakers function as complete loudspeaker systems, with electronics and components that are all precisely tuned and tweaked to work together. It's what makes SRMv2 loudspeakers “plug and play,” and includes equalization, time correction, and protection circuitry—all processes that allow the SRMv2 to deliver its broad stereo image and transparent sonic character.

Making up Mackie's Active design are a few key components. Phase-accurate crossovers allow precise control of turnover frequency and crossover slope, while eliminating phase shifts and distortion, for optimum imaging, depth of field and definition. Transducer time correction circuitry effectively times the arrival of electrical impulses to each transducer, so highs and lows reach listeners' ears simultaneously. Sophisticated protection circuitry intervenes in

microseconds in the unlikely event the speakers are pushed too hard or used incorrectly. And built-in EQ filters enable engineers at EAW to do precise final tuning of all SRMv2 loudspeakers. The end result is unparalleled clarity and maximum power—and the flattest, most accurate frequency response available.

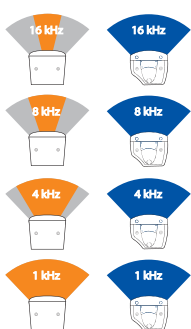
Handsome, Flexible, Durable

The new design also makes the SRMv2 Series loudspeakers lightweight, bringing new meaning to the word “portable”—the SRM450v2 is 11 pounds lighter than its predecessor, while the SRM350v2 weighs six pounds less. Each model



The SRM450v2 weighs 11 lbs less than its predecessor

is housed in a new midnight blue polypropylene enclosure, ensuring the SRM legacy of “built-like-a-tank” durability will continue. And like the originals, the SRMv2 loudspeakers can be positioned in a number of ways, making them versatile performers: they're pole-mountable, flyable, and can also be used as wedge monitor.



Thanks to its ultra-wide dispersion, even audience members standing up to 45 degrees off axis experience the SRMv2's silky smooth performance.

Mackie SRM450v2
Brand X

