

# EARTHWORKS DRUMKIT SYSTEM CONDENSER MICROPHONE SET



**SR25mp**  
25kHz cardioids

Earthworks has built a solid reputation over the years for making top-quality, extremely high-fidelity condenser microphones. With their unique, rocketship-like design and faithful sound reproduction, Earthworks microphones are commonly found in the most discriminating engineers' toolboxes. Recently they developed a three-microphone set specialized for drum recording—the idea being that you can capture an entire drum kit with only three microphones (two overheads and one bass drum mic), as opposed to the seven-to-ten mic setup often employed.

The DrumKit System (\$2,100 list/\$1,700 street) comes in two flavors, one intended for the recording studio and one for live sound. The recording version, or DK25/R, comes with two

TC25 omnidirectional microphones. Omni mics, picking up sound from all directions more or less at the same level, are ideal for use in a well-tuned recording

space, but not ideal for stage use where acoustics are less controlled and other instruments are in close proximity. The live version, or DK25/L, comes with a pair of SR25 cardioid (directional) microphones, which help “focus” the sound of what they are pointed at, giving you more control over your drum recording in unfamiliar settings. Both pairs are small-diaphragm condenser mics that capture frequencies up to 25kHz, which is significantly higher than most microphones. (Some of Earthworks' mics are rated twice as high, up to 50kHz!)

Both DrumKits™ come with the cardioid SR25 microphone for use on the bass drum. Rather than design a mic especially for bass drum, the Earthworks engineers had the rather bright idea to include an “inline” device to sculpt the sound of the mic to best suit what most people want to hear in a kick drum—a hearty low end, a scooped low-mid section (where the bass drum can sound “muddy” or “tubby”), and a nice, present attack in the upper midrange. This device, aptly named KickPad, is about the size of a roll of quarters and can also be used with other mics to achieve a more kick-friendly frequency response. The main benefit of the DrumKit System over other drum-mic packages is that the full-range SR25 microphones are available for use on other instruments after drum tracking is done.

I recently had the chance to check out both variants of the DrumKit System microphone pack when recording a jazz trio at Ex'pression College in Emeryville, CA. The band, consisting

of tenor saxophonist/clarinetist Sheldon Brown, electric guitarist John Finkbeiner, and drummer Vijay Anderson, were all set up in one large room with quite live acoustics. The TC25 omnis and SR25 cardioid mics were spaced out over the cymbals to capture the entire kit, and were side-by-side with Neumann KM184 condensers for reference. The SR25 on the bass drum was about a foot-and-a-half away from the front head, right next to a Sennheiser E602, a standard dynamic bass drum mic.

All drum mics ran into Metric Halo Mobile I/O 2882 preamplifiers and converters and were recorded to Digital Performer running on a G4 laptop. Back in the comfort of my own studio, I compared the results. On the bass drum, the more “standard” E602 had less definition and more “mud”, albeit a thicker bottom end than the Earthworks. To be fair to the E602, I've found it sounds better inside a bass drum without a front head (or with a hole in the front head), where it achieves a punchy, “rock” kick sound. For this placement, and on a bass drum with a front head, the SR25/KickPad combination had way more of what I was looking for: a well-defined yet round sound, with plenty of “air” in the upper harmonics of the drum. It was noticeably thinner in the extreme lows, and a look at the SR25's specifications showed me why—the mic is only rated down to 50Hz, which is higher than the fundamental frequency of your average bass drum. But in the context of this recording the “shaving off” of everything below 50Hz really helped focus the kick sound in a useful way. The other noticeable difference was the “bleed” from the other drums into the SR25, which the E602 didn't have, as dynamic mics don't have as much off-axis pickup as condenser mics. Again, it's all about context, and in this context the extra drum sounds (the snare drum in particular) augmented my overhead mics in a way I really liked.

Speaking of the overhead mics, both Earthworks pairs had their own extremely admirable

qualities. The TC25s, as would be expected from omni mics, picked up the entire kit much better than the other two pairs (two pairs of what?). I could hear more of the “body” of the toms and snare drum, and the cymbals weren't overly bright or fizzy. Even the kick drum was pretty loud in the TC25s, as they are rated down to 9Hz, but it was a woofy, unfocused sound that I would probably want to filter out in the mix. The SR25s filtered this area out themselves, but I felt like they also didn't quite get the lower frequencies of the toms and snare as much as I would want from a three-mic setup. They did sound great on the cymbals themselves, though—similar to the KM184s but with slightly more detail. If I were to use them again as overheads in the studio I would spend more time on placement to maximize the snare pickup, or else I would augment them with close mics on the snare and toms.

The bottom line is that both sets of overheads, combined with the SR25/KickPad on the bass drum, captured Vijay's nuanced and dynamic drumming beautifully. The TC25s sounded more “natural”, reproducing what it really sounded like in the room, whereas the SR25s sounded more “polished”, enhancing the detail in the cymbals a bit. Either way, with the DrumKit System, Earthworks has provided recording engineers an easy way to get a great drum sound, at a very reasonable price. For more information on the Earthworks DrumKit System, visit [www.EarthworksAudio.com](http://www.EarthworksAudio.com) and request their Free DrumKit System Demo CD and hear these impressive microphones in action for yourself.

— Eli Crews

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