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Earthworks

DK7 Drum Kit System

The impeccable Earthworks sound meets your favorite kit

REVIEW BY PAUL VNUK JR.

Earthworks is well known for its unique miniature-diaphragm condenser microphones that offer a “slice of reality” clarity. Over the years, the Earthworks line has evolved to include variations such as handheld vocal mics, the PianoMic system, and clip-on drum mics, but the slice-of-reality reputation remains. The company has offered a variety of drum mic kits over the years, beginning with a 3-mic setup that featured a pair of traditional high-gain TC or SR series overheads and a third SR mic for use on kick (in conjunction with Earthworks’ own in-line KickPad). Back in our November 2012 issue, we took a look at their DP30/C periscope style drum mics, made for close-miking use on snare and toms. The DP30/C is now discontinued; this month we will be looking at its successor, the DM20 DrumMic, which features prominently in the company’s new DK7 Drum Kit System.

What’s in the DK7?

DK7 stands for “Drum Kit, 7 Mics.” The package starts with four of the new DM20 mics for snare and toms, then adds a pair of the company’s SR25 25 kHz Instrument Microphones. The set is rounded out with the new SR20LS kick mic, which is currently exclusive to this kit but will be available on its own in the first quarter of 2018.

The kit ships in a slimline molded case with four RM1 RimMount drum mounts for the DM20 mics. These are the same as those used with the previous DP30/C mics; they are big, solid, and well-designed. Once attached, they stay put—and so does the mic. There are also three MC1 mic clips for the standard-shaped Earthworks mics, along with petite foam windscreens for each mic.



The DM20

The DM20 is a periscope mic. Its base is similar in size and shape to most other Earthworks fare, but instead of a thin tapered body and capsule enclosure at the tip, it has a built-in rubber-encased gooseneck. Perched on top of that is the periscope-style capsule; it now looks like the capsules found on most of the company’s other models, with similar porting and styling.

The DM20 is a cardioid mic with a frequency response of 50 Hz to 20 kHz ± 2 dB at 12", a sensitivity of 8 mV/Pa (-42 dBV/Pa), a maximum acoustic input of 150 dB SPL, and a 74 dBA signal-to-noise ratio with 20 dBA SPL equivalent self-noise.

Like most other Earthworks models, this mic is darn near ruler flat over its range, with tight linear dropoffs both above and below. These mics have an exceptionally fast transient capture and zero coloration to their sound.

The SR25 and SR20LS

The SR25 is one of the percussive/loud source warhorses in the Earthworks line; it can be found in many of the company’s long-standing drum packages. At 6.5" tall, it is also one of the shorter-scale condensers. It is also a cardioid mic, with a frequency response of 50 Hz – 25 kHz (± 2 dB) at 12", a 10 mV/Pa (-40 dBV/Pa) sensitivity, a maximum acoustic input of 145 dB SPL, and 20 dBA SPL equivalent self-noise.

The SR20LS is a specially-designed SR20, which was and is in my opinion one of Earthworks’ best all-around workhorse mics. It’s fantastic on everything from vocals to acoustic instruments, overheads, strings, and more. LS stands for Low Sensitivity; I’m venturing a wild guess that the SR20LS is, for all intents and purposes, a specialized SR20 with a built-in KickPad.

Its specs are interestingly 100% identical to those of the DM20. Comparing said specs to the original SR20 sheds some light on the new Low Sensitivity model. Most significant for a kick mic, the LS version has a 50 Hz to 20 kHz response where the normal SR20 is 100 Hz to 20 kHz. The 8 mV/Pa sensitivity and 150 dB maximum SPL on the SR20LS compare favorably, for this application, to the SR20’s specs of 20mV/Pa sensitivity and maximum SPL of 139 dB.

Studio and stage

In my DP30/C review I mentioned using said mics on three different drum kits: a modern Pearl Masters 4-piece set with a 22" kick, a smaller 1966 Slingerland Be-Bop 4-piece set with a 20" kick, and a loose, low-tuned kit of a touring drummer with a 22" kick and only one tom. Luckily I still have the use of the first two of those kits; I put the DK7 kit to work on them, both in the studio and live in a church sanctuary.

Bottom line, the mics in the DK7 kit do not play favorites. Each mic in the set captures the kit pieces, cymbals, and the whole picture of how they sit in their space in a very honest way.

Starting with the DM20, I placed three of them on the snare and toms and the fourth on the snare's underside. Like its predecessor, the cardioid DM20 is very focused; with the exception of some hi-hat bleed on the snare mic, each of the mics captured its source with a great tightness and precision—even boldness, since they offer no rounding or softening of the sources.

While they do not add any sound or tone of their own, they do benefit greatly from varying their angle, distance from the head, and positioning. Farther away from the head offers more of a big natural shell sound, and up close highlights the slap, ring, and tone of the head in extreme detail. Punch and bite of the stick hit can be controlled by positioning and angle.

Moving to overheads, despite their extended high end, the SR25 mics capture cymbals with an amazing detail yet with zero clinical harshness. Because of their speed, none of the high end is smeared, sluggish, or lingering. They work great in a spaced pair, focused straight down at the kit to offer a full and accurate image. Depending on the player, kit, and style of music you are mixing, you can use them as the centerpiece of the drum mix and just add in kick and kit pieces as needed for reinforcement, and they also work well to just add cymbal presence into the mix behind the close-miked drums. They are quite versatile.

The SR20LS was the only mic in the set that had a learning curve for me; it took a little fiddling to find the best spot on the kick. This mic, like many pencil condensers, works great inside the kick, up by the batter head for beater definition. It also works well on the outer kick head, photographing an image of the bass drum in its space. It does not work well just poking into the sound hole as a dynamic bass drum mic would. In that position, it is prone to burps and blasts of air.

Like all Earthworks models, it captures what it hears and is not kick-bass focused. On the inside, it is all about the thwack and attack, but there is very little boom. Outside, it does a great job capturing natural classic rock and vintage jazz tones. Live, I found it worked best in conjunction with a second, more traditional kick-focused mic to add the exaggerated boom. It pairs magically with the Yamaha SubKick!

OK to EQ

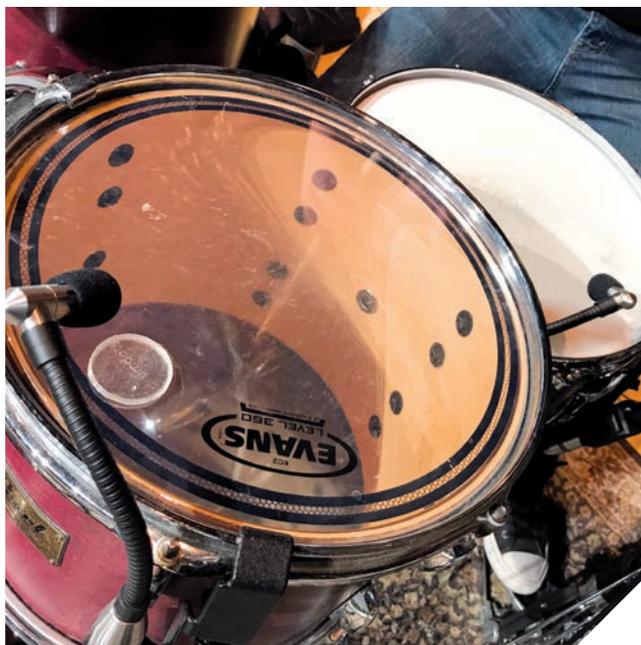
Often with mics of this nature, their biggest strength of utter honesty can, for some users, be a weakness if the engineer is used to drum mics that add tone to drums (as most dynamics do). In past Earthworks reviews I've always pointed out that these mics add nothing... so great sources sound great, and

crappy sources sound like, well, great detailed recordings of crappy sources.

This is still true, but I want to add that each mic in the DK7 kit takes EQ like a champ, especially the DM20 on toms. With a few simple EQ tweaks, I achieved thunderous results that made my drummer ecstatic, both with what he heard in his in-ear monitors and what was felt in the room on playback.

Wrap up

With this kit Earthworks lives up to their reputation for capturing sources, in this case drum kits, with the utmost realism in an utmost hi-fidelity way. Of the whole kit, I can't decide if I am more enamored with the DM20 on toms or the SR25 on overheads, and while I am still getting the hang of the SR20LS on kick, the good news is—with the DK7 kit, you get it all. ➤



PRICE: \$2999

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