



## HEIL SOUND HDK-8

A drum microphone kit with accessories... and no passengers.

**Text:** Mark Woods

**▶** Drum mic kits are an interesting idea, and while there's merit in having a set of mics specifically designed for the individual parts of a drum kit, I've often wondered who buys drum mics one kit at a time. Drummers in cover bands maybe? Drummers in original bands couldn't afford them. Most sound mixers, studios, venues or hire companies already have their favourite drum mics and usually upgrade one or two mics at a time, rather than replace the whole lot – it feels too much like starting again. However, for those looking for a fresh start, or perhaps project studio operators setting up to record drums for the first time, the Heil Sound HDK drum mic series is definitely worth a look.

Heil Sound makes an intriguing and distinctive range of mics and most of these are included in the HDK-8 kit. They're intriguing in the way they defy many of the established practices in microphone design and application. Manufactured in the USA, the company only makes dynamic mics but by using very light, modern materials for the diaphragms, they sound a lot like condensers. There are directional mics with extended frequency responses and super-tight pick-up patterns but very little proximity effect. There are mics with 'shaped' rather than 'flat' frequency responses, tailored to specific applications. All of them are well made, high quality microphones sold at value-for-money prices.

### EIGHT IS ENOUGH

The HDK-8 is a set of eight mics complete with either separate clips or integral stand mounts, plus three clip-on tom mounts, all supplied in a medium-strength hard case. Starting from the bottom of the drums the HDK-8 kit contains one PR48 kick drum mic. This is a big, black and heavy mic featuring bold red front and side grilles. Unscrewing the front of PR48's metal body reveals a large 1½-inch diaphragm dynamic capsule and internal

shockmount system. At just on 7cm across, the flat face of this mic nearly fills the entire hole of many a front kick drum skin, and can be quite difficult to get right inside the drum. Thoughtfully the XLR socket has been angled towards the rear of the mic so it's easy to connect the mic lead. The integral stand mount is chunky and attaches securely to the mic body. The tightening handle is also large and easy to use.

Like many dedicated kick mics the PR48's frequency response has been optimised for its application, with a big (10dB) boost centred around 80Hz and a strong low-mid dip from 100Hz to 500Hz. Reducing the low-mids on kick drum mics has been a standard EQ trick used in live sound for many years and creates a fatter sound. In the '70s and '80s this reduction was usually at around 300Hz – 500Hz, but in the last couple of decades fashion seems to have moved it lower, 150Hz – 300Hz, depending on the drum and musical style. Clicky kicks are more popular now too, and for this it's common to add a second mic, often a condenser, to get a good attack. For this purpose, the PR48 also features a boosted 2kHz – 5kHz range before the response falls away quite sharply in the very high frequencies. It can, of course, be EQ'd further to taste but in use the PR48 sounds pre-EQ'd and delivers a big, deep thump down low with a good fast crack in the high-mids that may eliminate the need for a second mic. Like all Heil mics it also offers excellent off-axis rejection and no sign of overload. Stated maximum level is 148dB.

### TWO LITTLE MICS

Moving to the centre of the drums the HDK-8 kit provides two Heil PR22s with the suggestion they be used on the snare and hi-hat. This is an example of how Heil mics are different. Using the same mic on snare and hats is unusual for starters, moreover you'd normally use condensers if you did, but the PR22 is an interesting mic. It's essentially

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a hand-held dynamic vocal mic with a black steel body and grille with the usual foam insert to reduce plosives. It's also got a separate clip so the mic can be easily removed from its stand for hand-held use. Its frequency response is wide at 50Hz – 18kHz with little proximity effect up close so it's deep but not boomy. The mids are somewhat hollowed out with a low point around 700Hz – 800Hz rising to an upper plateau around 4kHz – 8kHz. This peak in the high-mids occurs at a frequency range higher than most dynamic vocal mics and really brings out the crack of the snare. On hi-hats the PR22 is detailed and bright with no audible distortion. Its extreme off-axis rejection (claimed to be up to 40dB) helps minimise spill so both the snare and hi-hats sound as if they're the only thing in their respective spaces.

An even better application was to use one PR22 above the snare and another underneath. I needed another mic on the hi-hat consequently, but this double-miked snare sound was tight, powerful and bright without needing any EQ. As a vocal mic the PR22 is very bright with a flat, deep low-end, good gain before feedback in the monitors, and effectively controlled plosives. It makes an SM58 sound boomy and dull but it was hard sounding on some vocals, and sibilant as well. For backing vocals, however, it was a winner with its clear articulation and tight pattern making it easy to hear the BVs without having to go looking for them with the fader.

### 28 MICS ON TOMS?

Moving up to the toms the HDK-8 package provides three Heil PR28s for this purpose. These look like mini versions of the PR48 kick drum mic with the same red grille inset into the flat front and round sides of the steel body. Included in the kit are three HH-1 tom mounts that are height-adjustable and connect easily to either the rim of the toms or the mounting hardware. Tom mounts save mic stands but I find they can change the sound of the drum, especially the heavy ones, and I usually prefer to use separate stands. The Heil HH-1 mounts and PR28s, however, are both quite light so any tone changes should be minimal.

The PR28 is designed for drums, especially toms, snare and bongos in all their various forms. The mic uses a dual suspension system to reduce unwanted noise when it's hard-mounted to the toms and transmitted through the stand. It features a high output level, extreme level handling (148dB SPL) and the expected tight cardioid pattern. Its 55Hz – 18kHz frequency response is close to flat from 100Hz to 1kHz, rising to a peak around 3kHz – 4kHz then falling rapidly above 8kHz. In use these mics are accurate and detailed with an ability to sound just right flat (no EQ) on rack and floor toms. I used them on congas when mixing Ganga Giri one night and appreciated how they isolated the drums from the loud stage sound and provided a natural colour that complemented the heavily electronic band sound. The PR28 also sounds good to talk into and although it might be a little dull, and too prone to popping for vocal use, it would work well on brass or guitar amps.

### PLAYING FAVOURITES

Covering cymbal duties in the collection are two PR30Bs. If I had to choose, I'd say these are my favourite Heil mics. They are an unusual physical design in that they look for all the world like side-address, large diaphragm condensers. In actual fact they're an end-fire dynamic mic that Heil has thoughtfully attached a little symbol to – an arrow featuring

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Twin kick drums aside, the Heil Sound PR22 can cop a battering (from above or below).

## NEED TO KNOW



### Price

\$1999

### Contact

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### Pros

Distinctive sounds.  
Excellent off-axis rejection.  
Minimal proximity effect.  
High SPL handling.  
Many uses beyond drums.  
Good value.

### Cons

High handling noise.

### Summary

This eight-piece all-dynamic Heil drum mic collection offers great tailored responses suitable for specific drums, co-ordinated looks, tom mounts and a hard case. The mics have great feedback rejection, tight responses that are relatively deaf to their surroundings and versatility beyond the drum kit.

the words: “end fire element” around the back of the top rim of the head of the mic, making it clear which direction to point it in. And because it’s a Heil mic, if you try to address it from the side you won’t hear much at all. The front of the grille is red, to match the PR48 and PR28, while the rest of the body is black. The stand-mount is a beauty, the best of the range. The round shaft on the bottom of the PR30B slips into a tightening ring that grips easily and securely.

The PR30B uses a 1½-inch diaphragm, and again, a Sorbothane shockmount that separates the capsule from the body of the mic. The frequency response is wide at 40Hz – 18kHz and quite flat from 50Hz – 10kHz, with a 3dB presence peak centred just above 4kHz. The pick-up pattern is closer to hyper-cardioid with particularly strong rejection from the sides. This tight pattern is partly why these mics tend to work so well as cymbal mics; the separation of the cymbals from the rest of the kit is pronounced compared to the usual small diaphragm condensers typically used as overheads. The transient response and fine detail are comparable to a small diaphragm condenser and I liked the way the cymbals could be hit hard without turning harsh and nasty. Also impressive was the way it could pick up the low-end of cymbals, particularly the ride cymbal.

But my favourite use for the PR30B was not on drums or cymbals. Everyone is looking for that ‘big, fat’ sound from guitar cabs and here this mic delivers in spades. Clear mids, strong low-mids and accurate high-mids – guts with clarity but a minimum of ear-bleed. It worked on every amp I tried including Tim Rogers’ full and dynamic playing style, Ash Grunewald’s louder Fender Twin amp setup and Lucie Thorne’s super-warm amp sounds.

But wait, there’s more! The PR30 is also a very good vocal mic. Not for handheld live use, it’s too bulky for that, and

it does have high handling noise, but it’s big, rich tone and clear articulation would be great for broadcasting or announcing applications.

### GREAT PR

The more I got to know these mics the more I liked them and everything I’ve said about their live qualities applies to recording too – except the part about gain before feedback! I rarely use dynamic mics at all for recording but after using the Heil mics at several live shows I was confident enough to record a whole African percussion album for Sayon Souare using only mics from the HDK-8 kit. The PR48 got the big drums, the PR28 was used on the mid-sized skin drums with the PR30B on kri, shakers and lead djembe, while the PR22 worked well on the fairly sparse vocals. Many of the instruments were so loud they made my head snap back if I walked into the recording room while he was playing, but the Heil mics have an ability to tame loud peaks and present the recorded sounds in a close, warm way with no distortion and almost no room sound. They’re different to other mics and take some getting used to, but after a while I found I started to hear their little voices saying “try me, try me” on a variety of sources including bass cabs, fiddle and accordion.

Once you get to know them it’s unlikely the mics in the HDK-8 kit will be restricted to drum duties. Maybe the PR48 kick drum mic will be, but the others are all interesting and distinct sounding general-purpose mics that will also do a nice job as problem-solvers, particularly in situations where good separation is required. Compared to the relative cost of what most people spend building up a set of decent drum mics, the retail price of the HDK-8 kit is quite a bargain. Also available is the HDK-7 kit, which is much the same but has one less PR28 tom mic and mount. Check ‘em out. ■